

**Report to the Government of Niue and the United Nations
Development Programme**

Invasive Plant Species on Niue following Cyclone Heta

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Report to the Government of Niue and UNDP: Invasive species on Niue following Cyclone Heta

James C. Space¹, Barbara M. Waterhouse², Melanie Newfield³ and Cate Bull⁴

1.0 What's new on Niue – a summary of findings

On January 6, 2004, the full force of Cyclone Heta, a category 5 cyclone, hit the island of Niue. In addition to the loss of life and property, serious damage was done to the forests and other ecosystems of the island, particularly on the north and west sides. If not blown over, most trees and other large vegetation were stripped of leaves and branches and subjected to salt spray. This sort of disturbance provides an opportunity for new invasive species to become established and for many species already present to flourish. Following the cyclone, personnel from the Cook Islands, Fiji, French Polynesia, New Zealand and other countries visited the island to provide aid and assistance, and equipment and material were brought in to aid in the recovery. Although quarantine procedures were maintained there is always the possibility of inadvertently introducing new plant species during an emergency such as this. During the cleanup process rubble was moved and dumped in new areas, transferring invasive species to new locations.

At the request of the Niue Department of Environment, a post-cyclone survey was conducted 23-31 July, 2004, to search for new invasive plant species and to assess the expansion in range and vigor of species previously recorded. As expected, light-loving species that take advantage of disturbance and new openings in the forest have become more prevalent. These include several species of *Crotalaria*, *Leucaena leucocephala*, *Justicia betonica*, *Mikania micrantha*, two *Salvia* species, *Stachytarpheta cayennensis* and *S. jamaicensis*, several large grass species, *Tithonia diversifolia* and the indigenous vine, *Merremia peltata*. The increased abundance of these species may be transitory; as the forest recovers and establishes a new

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canopy they will be suppressed in many areas. On the other hand, where gaps were created these species may remain on a more or less permanent basis and, in some cases, require control. The introduced pomea or coral bean tree, *Adenanthera pavonina*, will also likely take advantage of the disturbed conditions to increase its abundance in the forest.

The branches blown off the trees have greatly increased the fuel loading on the forest floor and consequently increased the risk and difficulty of controlling wildfire. Fires were a serious problem following the cyclone and are likely to be so whenever drought conditions are repeated for some time in the future. Several grass species (particularly *Panicum maximum*, *Pennisetum purpureum* and *Sorghum arundinaceum*) and stands of Mexican sunflower (*Tithonia diversifolia*) have increased in area, both as a result of continuing spread and cyclone disturbance, and these species contribute fuel that can lead fire into the forest with the potential to seriously damage the native vegetation, which is not fire-adapted. It will be necessary to periodically reduce this hazard, particularly around habitation and sensitive and conservation areas. As a side note, Niue is in serious need of rural/wild-land firefighting equipment, both tools and personal equipment for firefighters and a firefighting truck with a tank and pump that can carry and apply water to forest fires.

Good progress had been made toward eradicating several serious plant pests (*Antigonon leptopus*, *Mimosa diplotricha* [=invisa] and *Sphagneticola* [=Wedelia] *trilobata*) prior to the cyclone, and this has continued to some degree during the recovery. It is very important that this progress not be lost due to the many other priorities following the cyclone.

There has been a limited amount of control work done on two other species (*Epipremnum pinnatum* cv. 'Aureum' [=Scindapsus aureus] and *Clerodendrum chinense*) that are serious pests. It would be highly desirable to start control work on *Syngonium podophyllum* and *Macfadyena unguis-cati* in the near future. There are also a number of other species that may require management action to prevent impact on sensitive, natural and protected areas.

We closely inspected the vehicles and remaining crushed rock brought in from French Polynesia and found nothing unusual. However, they had already been used widely in post-cyclone cleanup and rebuilding efforts, so hopefully they were free of weed seeds on arrival in Niue. Although the risk appears to be small, the sites where the vehicles and materials were used should be monitored for several years post-wet season to make sure no invasive plant seeds were brought in. We inspected the sites where rubble had been dumped and, except for a new infestation of *Clerodendrum chinense* at the rubble dump at the end of the airport runway, only the usual ruderal weeds were noted.

A few species not noted in previous surveys were found and collected for the record, but none of them appeared to have arrived and established as a result of post-cyclone activities. Thus, the main task facing Niue is to continue to deal with the serious invasive plants that were present before, a number of which are now expanding in range and vigour encouraged by the cyclone disturbance.

Table A summarizes priority species and recommended management actions. Please refer to Table B for a full list of species that may require management. Of particularly high priority should be continuing the effective work on *Antigonon leptopus*, *Epipremnum pinnatum*, *Mimosa invisata* and *Wedelia trilobata* to protect the investment made thus far, extending control work to *Syngonium podophyllum*, and beginning eradication of *Macfadyena unguis-cati*. As a result of cyclone disturbance control action will be needed where invasive species

such as *Delonix regia*, *Leucaena leucocephala*, *Merremia tuberosa* (and the native vine, *Merremia peltata*) impinge on the re-establishment of natural ecosystems. Serious research needs to be done into methods to control *Clerodendrum chinense*. Finally, control of invasive grasses will be needed when they promote wildfire that can endanger structures or the forest.

The next step should be to review all the species that need action (see Table B) and develop strategic, tactical and operational plans for the management of invasive plant species on Niue. Funds and trained personnel are always limited, so projects must be prioritised. Benefits (economic and non-economic), costs, social impacts and environmental considerations are only some of the factors that must be considered. To be understood, accepted and supported, plans and operations must be developed with public input and involvement. Management of some species likely will exceed the resources available to Niue and will require requests for outside assistance. The authors of this report stand ready to provide input and support as the process proceeds.

Table A. Priority species for management actions.

Scientific name (family)	Common names (abridged)	Comments and recommendations
<i>Adenanthera pavonina</i> (Fabaceae)	pomea, coral bean tree	Control as needed in sensitive and natural areas.
<i>Alternanthera brasiliana</i> (Amaranthaceae)	Brazilian joyweed	Discourage further planting; monitor spread; control outside of cultivation when a threat to sensitive or natural areas.
<i>Antigonon leptopus</i> (Polygonaceae)	chain of love, coral bells	Continue the eradication program until this species is eliminated.
<i>Asparagus setaceus</i> (Liliaceae)	ornamental asparagus	Strongly discourage further planting; determine distribution, destroy plants outside of cultivation. If public opinion is favourable, work to eradicate this species.
<i>Bryophyllum pinnatum</i> (Crassulaceae)	tupu he lau, tupu noa, life plant	Discourage further planting; determine distribution; control as needed outside of cultivation, especially when a threat to sensitive or natural areas.
<i>Clerodendrum chinense</i> (Lamiaceae)	Honolulu rose	Research control methodology; strongly discourage (prohibit?) additional planting and dumping of garden cuttings.
<i>Delonix regia</i> (Fabaceae)	pine, flame tree	Monitor reproduction and spread; discourage further planting; control in sensitive and natural areas as needed
<i>Dissotis rotundifolia</i> (Melastomaceae)	dissotis, pink lady	Monitor site where previously found, eradicate immediately if found at this or any other location.
<i>Epipremnum pinnatum</i> cv. 'Aureum' [= <i>Scindapsus aureus</i>] (Araceae)	pothos, money plant	Continue the campaign to control outside of cultivation, especially when growing in forested areas.
<i>Falcataria mollucana</i> (Fabaceae)	Molluca albizia	Monitor reproduction and spread; discourage further planting; control in sensitive and natural areas as needed. Consider reducing the number of trees if not a desired species.
<i>Hemigraphis alternata</i> (Acanthaceae)	metal leaf, red ivy	Discourage further planting; determine distribution; control as needed outside of cultivation, especially when a threat to sensitive or natural areas.
<i>Hylocereus undatus</i> (Cactaceae)	night-blooming cereus, pitahaya	Discourage further planting; determine distribution; control as needed outside of cultivation, especially when a threat to sensitive or natural areas.
<i>Hyptis suaveolens</i> (Lamiaceae)	stinking Roger	Determine distribution, work with the manager of the Vaiea Farm to eradicate.
<i>Justicia betonica</i> (Acanthaceae)	white shrimp plant	Discourage further planting; monitor spread; control outside of cultivation when a threat to sensitive or natural areas.
<i>Lantana camara</i> (Verbenaceae)	talatala, talatala talmoa, lantana	Check status of previously introduced biocontrol agents and reintroduce or introduce new ones as appropriate; local control as necessary.
<i>Leucaena leucocephala</i> (Fabaceae)	pepe, leucaena	Control as needed in sensitive and natural areas, particularly where it may inhibit natural reproduction; check status of leucaena psyllid.
<i>Macfadyena unguis-cati</i> (Bignoniaceae)	cat's claw climber	Research control methodologies; determine distribution, initiate eradication project.
<i>Melinis minutiflora</i> (Poaceae)	molasses grass	Monitor for spread, especially if burned; limit burning; reduce in forested areas and around structures as needed to reduce fire hazard
<i>Merremia peltata</i> (Convolvulaceae)	fue, fue vao, fue kula, merremia (native)	Monitor for spread and overtopped trees, cut back vines as necessary; provide advice to landowners on appropriate control measures.

Table A. Priority species for management actions.

Scientific name (family)	Common names (abridged)	Comments and recommendations
<i>Merremia tuberosa</i> (Convolvulaceae)	wood rose	Control in and near sensitive and natural areas. Discourage further cultivation.
<i>Mimosa diplotricha</i> [=invisa] (Fabaceae)	giant sensitive plant	Continue the eradication program until this species is eliminated.
<i>Panicum maximum</i> (Poaceae)	Guinea grass	Reduce in forested areas and around structures as needed to reduce fire hazard
<i>Pennisetum purpureum</i> (Poaceae)	elephant grass	Reduce in forested areas and around structures as needed to reduce fire hazard.
<i>Sorghum arundinaceum</i> (Poaceae)	wild sorghum	Reduce in forested areas and around structures as needed to reduce fire hazard
<i>Spathodea campanulata</i> (Bignoniaceae)	African tulip tree	Strongly discourage planting; determine distribution, consider an eradication program or at least work to reduce the number of trees.
<i>Sphagneticola</i> [=Wedelia] <i>trilobata</i> (Asteraceae)	Singapore daisy	Continue the eradication program until this species is eliminated.
<i>Syngonium podophyllum</i> (Araceae)	arrowhead plant, goosefoot plant	Control outside of cultivation, especially when growing in forested areas.
<i>Thevetia peruviana</i> (Apocynaceae)	yellow oleander	Discourage further planting; monitor spread; control outside of cultivation when a threat to sensitive or natural areas.
<i>Tithonia diversifolia</i> (Asteraceae)	<i>matala</i> , Mexican sunflower	Control in forested areas and around structures as needed to reduce fire hazard.
<i>Tradescantia zebrina</i> (Commelinaceae)	wandering jew	Discourage further planting and dumping; control outside of cultivation when a threat to sensitive or natural areas.

2.0 Previous work and the basis of this survey

Yuncker (1940) and Sykes (1970) published surveys of the flora of Niue. Whistler and Atherton completed a botanical survey of the Huvalu Forest Conservation Area in 1997. These surveys cover all plant species and identify the invasive species present at the time they were made.

In 2000, at the request of the Government of Niue, the US Forest Service sponsored a survey of invasive plant species of environmental concern (Space & Flynn, 2000). That survey made a number of recommendations for the management and control of invasive species on Niue. Control efforts were already underway on some species at that time (particularly eradication of *Mimosa diplotricha* [=invisa]) and subsequently assistance was received from the Secretariat of the Pacific Community for eradication of *Antigonon leptopus*, *Mimosa diplotricha* and *Sphagneticola* [=Wedelia] *trilobata*. Following Cyclone Heta, an assessment of the impact on biodiversity (Butler, 2004) recommended a resurvey to identify changes in status or threat since the previous survey and to recommended appropriate management actions. Thus, the basis for this survey, carried out 23-31 July, 2004, which updates and supercedes the findings of the 2000 report.

Travel, accommodation and other expenses for all personnel were funded from the UNDP Enabling Activity in Biodiversity Project. Jim Space and Barbara Waterhouse participated as volunteers and salaries for Melanie Newfield and Cate Bull were covered by the New Zealand Department of Conservation as a contribution to the post-cyclone response. Dave Butler, Consultant to the UNDP Project, established the need for the survey through his post-cyclone investigations on Niue and facilitated arrangements between the participants, UNDP and the Niue Department of Environment. Arrangements for the work on Niue were made by Sauni Tongatule, Department Director, and Judy Nemaia, Biodiversity Project Coordinator, Department of Environment.

During our visit local experts⁵ showed us sites of known infestations and previous management actions. We also had available copies of the botanical surveys conducted in the past as well as the field record, voucher specimen information and report of the 2000 survey. The survey team focused on disturbed sites such as roadsides, forest tracks, rubble dumps, areas of severe cyclone damage, the villages and the town of Alofi. A number of agricultural areas were also inspected. Rapid visual inspection and recording of known invasive and potentially invasive species along the routes chosen was accompanied by more detailed inspection at a variety of sites. Herbarium specimens (48) of 'new', 'significant', taxonomically 'difficult' or unknown species were collected for later identification or verification. All voucher specimens and duplicates will ultimately be deposited in herbarium collections at the Queensland, Australia, Herbarium and either the Bishop Museum in Honolulu, Hawai'i, or the Landcare herbarium in New Zealand.

For the purposes of this report, invasive species occurring in or of threat to Niue have been grouped into five categories:

1. Species that are subjects of control and eradication programs (5 species).
2. Species that are known to be invasive and are of particular concern on Niue. These are species that are known to have severe impact elsewhere and are either showing similar behaviour on Niue or have the potential to do so. (40 species).
3. Other species that are known to be invasive or weedy and are present on Niue. These species would generally be of lower priority for management action (197 species).
4. Native species and Polynesian introductions that exhibit aggressive behaviour (26 species).
5. Species that are invasive elsewhere in similar ecosystems but were not seen on our visit and are not reported in the literature as being present on Niue (587 species).

These species are listed in Appendix 1. Additional information about each species is located on an Internet site, <http://www.hear.org/pier>, and on the PIER-CD, copies of which have been made available to the Departments of Environment and Agriculture, Forestry and Fisheries.

While the team was on Niue, Newfield and Bull more closely investigated priority species for control and eradication and established trials of control measures. Separate reports on these activities are in preparation.

3.0 Survey results

3.1 Species that are subjects of control and eradication programs

Antigonon leptopus (chain of hearts, coral bells), a climbing vine often planted as an ornamental, is a widespread pest on Guam. A small number of examples, mostly in cultivation, were previously seen on Niue. There are two sites left; one that has been treated but requires additional work and another small infestation noted in Alofi. This is a difficult species to eradicate because of underground tubers, but eradication is achievable because of the small number of plants. Eradication work is ongoing.

Infestations of *Clerodendrum chinense* (Honolulu rose) are common in the villages, spreading into the surrounding forest, and a few infestations elsewhere (a new infestation was

⁵ We would like to sincerely thank Haden Talagi and John Talagi, Department of Environment, and New Aue, Department of Agriculture, Forestry and Fisheries, for their generous assistance in the conduct of the field work.

seen where rubble was dumped at the end of the airport runway). It is a shade-tolerant species that primarily reproduces from root suckers and can form dense thickets, crowding out other species. This is a problem species in Hawai'i and a major pest in Samoa and American Samoa. The control strategy to date has been repeated slashing or mowing. Youth groups did some work on it in the villages, but the strong odour of the plant and persistent resprouting discouraged them. Eradication is not feasible for this species but it is still possible to limit the spread and prevent invasion of sensitive and natural areas.

Epipremnum pinnatum cv. 'Aureum' [= *Scindapsus aureus*] is a climbing vine with large green and yellow leaves. It forms a dense mat on the forest floor as well. Spread by cuttings, it is difficult to eradicate as any roots or pieces left behind will sprout. Considerable work has been done in eliminating patches of this species, but much remains to be done. Eradication is not feasible for this species but it is possible to limit the spread and prevent invasion of sensitive and natural areas.

Mimosa diplotricha [= *invisa*] (giant sensitive plant) is a particularly nasty plant that is covered with thorns and forms dense tangles that are difficult to walk through. It is present at two sites on Niue and was previously treated with Roundup® (Butler, 2004). Presently, crews are visiting the known sites and pulling and burning new specimens. Good progress has been made in eliminating this species. Eradication is feasible and worthwhile objective, but because of the long-lived seeds, will probably require follow-up for 10-20 years.

Sphagneticola [= *Wedelia*] *trilobata* (Singapore daisy) is a pest on many Pacific islands. It forms dense, tangled mats that exclude other species. It occupied about 20 small sites around the island prior to the cyclone and many of these have been treated (Butler, 2004). However, this species is difficult to eradicate and small areas remain at sites that have been treated. Progress so far indicates that eradication should be feasible, although further work on locating and mapping sites is needed.

3.2 Species that are known to be invasive and are of particular concern on Niue

These are known invasive plants that are causing trouble in similar ecosystems and have been introduced into Niue. The ones that are widespread may require control action to keep them out of sensitive areas while it may be desirable to take action to prevent further spread of some of the less prevalent ones (see species-specific recommendations).

3.21 Invasive species already widespread on Niue

Adenanthera pavonina (pomea, coral bean tree), invasive in secondary forests throughout the Pacific, is fairly widespread (and not native) on Niue. Coral bean has the ability to overtop many native trees and eventually form monospecific stands. It is quite invasive on Tutuila, American Samoa. It produces huge amounts of seed and takes advantage of openings in the forests so is likely to greatly increase as a result of the cyclone.

Alternanthera brasiliensis (Brazilian joyweed) was seen planted and vigorously reproducing at the Matavai Resort and elsewhere. It can spread through discarded cuttings as well as seed. The seeds apparently have the ability to remain dormant for a long period. It is invasive in northern Queensland and the Northern Territory, Australia.

Chamaecrista nictitans (partridge pea) appears to have become more prevalent since the 2000 survey. Several extensive stands of this species were noted, one of which was almost a monoculture. It is likely to take advantage of the cyclone damage to become more widespread.

Lantana camara (talatala, talatala talmoa, lantana) is fairly common. Introduced biological agents are reportedly present and apparently control it to some degree. Birds were reportedly using it as a food source following the cyclone. If so, this could spread it more widely.

Leucaena leucocephala (pepe, leucaena) was not considered widespread in the 2000 survey (it was noted as prevalent but not particularly aggressive) but has obviously greatly increased since and is abundant along roadsides and in other disturbed places. This species produces large amounts of seed and grows well in disturbed areas. From the amount of reproduction observed it has obviously already taken advantage of the cyclone disturbance. It is only a small tree so where there are overtopping trees it is likely to be suppressed when the trees regain their full foliage but elsewhere it may be a more persistent problem.

Mikania micrantha (fue saina, mile-a-minute weed), a smothering vine, is pervasive throughout the island. It is widespread throughout the Pacific and is a major pest wherever it occurs. It is spread both by seed (dispersed by wind, as a contaminant on vehicles and machinery or on clothing or in the hair of animals) and vegetatively from broken stem fragments. Each node of the stem can produce roots. This species has probably been favoured by the disturbance caused by Cyclone Heta.

Passiflora foetida (vine vao, love-in-a-mist) is of limited extent. It is prevalent on most Pacific islands and will probably increase, at least temporarily, as a result of cyclone disturbance.

Panicum maximum (Guinea grass), while less extensive than *Pennisetum purpureum*, is common, especially along roadsides. It seeds profusely and the seeds are dispersed by wind, birds and flowing water or as a contaminant in grass seed. It can survive long periods of drought. It is a problem species in Guam and Hawai'i and is very prevalent in Samoa and Tonga, forming dense stands in open and disturbed areas.

Pennisetum purpureum (elephant grass) forms dense perennial stands that are difficult to penetrate and inhibit establishment of other vegetation. It is a major problem in the Galapagos Islands, one of the most invasive weeds in Papua New Guinea and the most troublesome grass on Niue. It appears to have significantly increased its range, particularly along roadsides, since the previous survey.

Sorghum arundinaceum (wild sorghum), like *Pennisetum purpureum*, has increased its range since the last survey, particularly along roadsides. However, it generally forms more scattered, open stands than *Pennisetum purpureum*.

Fire will sweep through stands of the above three large grasses but they regenerate rapidly from underground rhizomes and seed. Stands of grass are a fire hazard to houses and other structures and if present adjacent to forested areas can lead fire into the forest, causing serious damage to fire-sensitive native species. Since they reproduce well after fire, these grasses can perpetuate a fire cycle (D'Antonio and Vitousek, 1992).

Scattered examples of *Ricinus communis* (tuitui, tuitui fua ikiiki, castor bean) were seen. This species is widespread on a number of Pacific islands, including Samoa and Tonga. The seeds are very poisonous. Disturbance favours this species so it may increase, particularly along roadsides and in openings.

Two species of *Salvia* (*S. coccinea* and *S. occidentalis*) (momili, red salvia and pupu elo, sealu, blue sage, respectively) are widely planted as ornamentals and escape to form large clumps. These species were most common in disturbed sites adjacent to villages and along roadsides. They do not appear to thrive in shaded areas.

Stachytarpheta cayennensis (mautofu Samoa, motofu Samoa, blue rat's tail) is ubiquitous as it is throughout the Pacific. While mostly a pest in open areas, it can invade into the forest, particularly when there has been disturbance. *Stachytarpheta jamaicensis* (blue porterweed, light blue snakeweed) is also common and the two species are reported to hybridize.

3.22 Invasive species of limited extent

Reproduction of *Anacardium occidentale* (cashew nut) was seen along the road east of the Vaiea experimental farm. It appears to be doing quite well on Niue, unlike most Pacific islands, and probably has the potential to spread more widely.

Asparagus setaceus (ornamental asparagus) was seen at the entrance to the Matavai Resort and at a few other locations, particularly planted around gravesites. This species is a pest in Hawai'i, Tonga, Lord Howe Island and parts of mainland Australia. It climbs into the trees and makes travel difficult because of its thorny nature. Its seeds are spread by birds, so it has the potential to spread widely.

Bryophyllum pinnatum (tupu he lau, tupu noa, life plant) was recorded in quite a number of places, usually associated with habitation or formerly inhabited or cultivated sites. It primarily reproduces vegetatively (with each leaf capable of producing numerous new plantlets), but we also saw it in flower. It is a nuisance species in Hawai'i and on some other Pacific islands. It is a species that loves to grow on rocks and will be difficult to remove if it becomes widely established in the wild.

Quite a lot of reproduction of *Delonix regia* (pine, flame tree) was noted. This species is widely planted throughout the Pacific and in most places is not a problem, but conditions on Niue appear to be favourable to its spread. It is quite invasive at several sites in north Queensland, Australia.

Dissotis rotundifolia (dissotis, pink lady) was previously found along the road from Alofi to Public Works, across from Tapeu fisheries (probably an escape from cultivation). It could not be found in the present survey. Dissotis is a serious problem in Samoa and some other places, forming dense mats on the ground and shading out other species, occasionally even climbing over small shrubs.

Occasional trees of *Falcataria moluccana* (*Molucca albizia*) were seen. There was substantial seedling growth adjacent to the Limu Pools where severe cyclone disturbance had occurred. This species has the potential, over time, of spreading more widely (as can be seen in Hawai'i and on Pohnpei and Tahiti). The wood is weak and many of the trees were damaged by the cyclone.

Hemigraphis alternata (metal leaf, red ivy) was noted in several locations. This species is shade tolerant and will spread in the forest understory. It is mostly found planted as an ornamental and along roadsides where cuttings have apparently been dumped.

Hylocereus undatus (night-blooming cereus, pitahaya) was seen on the previous survey, mostly in Alofi, but a large clump was also seen in this survey on the rocky hillside above the Anana viewpoint. This species likes to grow on rocks, and Niue may be a very favourable habitat for it. It mostly spreads vegetatively but birds and fruit bats can spread it if it sets fruit.

A small patch of *Hyptis suaveolens* (stinking Roger) was observed at the Vaiea Farm. This species had not been recorded previously on Niue and may have been introduced as a contaminant of livestock or hay. It was shown to Miles Hibbert-Foy, manager of the nonu plantation, along with recommendations for its removal by hand pulling and destruction by fire. He subsequently found additional areas elsewhere on the farm and did some initial control.

Justicia betonica (white shrimp plant) is widely planted as an ornamental on Niue, but numerous wild examples were seen. It had not previously been recorded as naturalised. In Hawai'i it escapes and forms large stands and seems to be doing the same on Niue.

Macfadyena unguis-cati (cat's claw creeper) was seen beside the Public Works building and at the Vaipapahi experimental farm. The infestation at Public Works seems to have increased in size since the 2000 survey and has also spread along the road toward the golf course and across the road into an abandoned orchard. This aggressive vine climbs trees and also forms a dense mat on the ground. Control is difficult because it has tuberous roots and reproduces from pieces and cuttings. It is a problem species in Hawai'i as well as northeastern New South Wales and southeastern Queensland in Australia.

Melia azedarach (sili, Chinaberry) is present but not common. This species is a prolific producer of seed, which is spread by birds. It is invasive in a number of Pacific locations, including the Cook Islands, French Polynesia and Hawai'i as well as in South Africa.

Melinis minutiflora (molasses grass) is a species that is both invasive and can cause a serious fire hazard. It has modified fire regimes on many islands where it has been introduced (D'Antonio and Vitousek, 1992). It is not widespread on the island but could increase as a result of disturbance, particularly fire (it was collected at the end of a borrow pit along the Mutalau-Lakepa road between Fuelala and Vaitafe in the 2000 survey and was re-located at this site during the present survey).

Merremia tuberosa (wood rose), a climbing, smothering vine, is notable for its aggressive behaviour on Niue. It is present at a number of locations—good examples can be seen at the dump and behind the former library, where the cyclone knocked it out of the trees but it otherwise seems to be thriving.

Mimosa pudica (sensitive plant), much smaller than *Mimosa diplotricha* and with fewer small prickles, can form dense mats. It is already widespread on Niue, but it may become even more prevalent with time. It is a serious weed on many Pacific islands.

A number of specimens of *Psidium guajava* (kautoga, kautoga tane, lala, guava) were seen in cultivation and as wild saplings. This is a major invasive species in Tonga and the Galapagos Islands as well as a problem in French Polynesia (Marquesas Islands), New Caledonia, Hawai'i and Fiji. Frugivorous birds, as well as rats and feral pigs, disperse the seeds. Perhaps it may, over time, become more widespread.

A single tree of *Senna siamea* (cassod tree) was seen at the Vaipapahi Experimental Farm. It is invasive in Australia (Cape York Peninsula) and reported to be weedy on Tahiti.

Senna tora (sicklepod) was noted at Vaipapahi farm and elsewhere, especially along roadsides and margins of cultivated areas. It is a major pest on the island of 'Eua, Tonga, and probably has the potential to spread more widely on Niue.

Solanum torvum (prickly solanum, devil's fig) is a spiny species of disturbed areas that forms dense, impenetrable thickets. It was collected on Niue in 1975 (Sykes 1126 cited in Whistler, 1988), but was not seen in the 2000 survey or this one. It probably has been eliminated, but if not it certainly must be of very limited extent and would be a candidate for eradication. It is a serious problem for agriculture.

Spathodea campanulata (African tulip tree) is occasionally planted as an ornamental. This tree has become a major problem in Fiji, the Hawaiian Islands and some other places. Large trees do not stand up well to wind. At the Vaipapahi Experimental Station it has begun to spread locally by what appear to be root suckers and possibly by seed.

Syngonium angustatum and *S. podophyllum* (arrowhead plant, goosefoot plant) are two very similar climbing aroids that escape from cultivation. They have the ability to spread in the deep shade of intact forests, forming a dense mat on the forest floor as well as climbing trees (behaviour similar to *Epipremnum pinnatum* cv. 'Aureum' [= *Scindapsus aureus*]). They are difficult to eradicate as they are able to reproduce from a single node and bits and pieces of the stems or roots are easily overlooked. They primarily spread from dumped cuttings. *Syngonium angustatum* is a problem species in American Samoa while *S. podophyllum* is widespread in Hawai'i. *Syngonium podophyllum* was recorded at a number of sites on this survey. While mostly associated with settlements, examples were observed growing along roadsides away from habitation. This species appears to be referred to as "ivy" on Niue.

Thevetia peruviana (yellow oleander) is widely planted and appears to be naturalizing with dense thickets observed at the base of 'parent' plants. Immature fruit were observed on some plants but it is possible that some of the regeneration was from suckers. All parts of this plant are poisonous.

Tradescantia zebrina (wandering zebrina) is less prevalent than *T. spathacea* (talotalo, laupapaki), perhaps because it was more recently introduced. It is shade tolerant and thus has the potential to spread in the forest understory. Once it spreads into the rough upraised coral of the island it will be almost impossible to remove. There are examples, both cultivated and naturalised, at the Matavai Resort and elsewhere. It is commonly spread through the dumping of garden cuttings.

3.3 Other species that are known to be invasive or weedy and are present on Niue

A number of other introduced species that are known to be invasive were noted (see Appendix 1, Table 3). Many of these species are prevalent along roadsides or on disturbed sites while others are yet uncommon or are in cultivation. For the ones that are already widespread, there is probably little that can or should be done, other than local control where they are a problem for agriculture or a threat to sensitive or natural areas. However, some of the uncommon species or those yet in cultivation could become a problem in the future, since there is often a long lag time between introduction and when a species begins to cause serious impact. These species should be monitored for spread and possible control measures, if necessary. A study in New Zealand showed that it is often worth controlling these species even if their likely impact is uncertain (Harris, Timmins and Panetta, 2003)

A number of exotic tree species have been introduced to Niue. The occasional specimen of *Bauhinia* sp., likely *Bauhinia monandra* (pine fua loloa, orchid tree), was seen outside of cultivation. *Tecoma stans* (yellow bells, yellow-elder, yellow trumpetbush) is a serious invader of disturbed areas in Tonga and French Polynesia where it grows in dense stands, commonly with other weedy species. The seeds are wind-dispersed but it was only seen in cultivation on Niue. *Casuarina equisetifolia* (ironwood) was reproducing to a limited extent along the road east of the Vaiea experimental farm. *Ceiba pentandra* (vavae, kapok), *Moringa oleifera* (horseradish tree) and *Samanea saman* (monkeypod) are present but these should be easily controlled if they appear in unwanted places.

A number of introduced grasses have become established, including *Axonopus compressus* (carpetgrass), *Axonopus fissifolius* (narrow-leaved carpetgrass), *Bothriochloa bladhii* (blue grass), *Cenchrus ciliaris* (buffelgrass), *Cenchrus echinatus* (bur grass); *Chloris barbata* (swollen fingergrass), *Chloris gayana* (Rhodes grass), *Cynodon dactylon* (Bermuda grass), *Dactyloctenium aegyptium* (beach wiregrass), *Dichanthium annulatum* (bluestem), *Digitaria ciliaris* (fingergrass, smooth crabgrass), *Digitaria violascens* (smooth crabgrass), *Eragrostis amabilis* (Japanese love grass), *Paspalum conjugatum* (T grass, Hilo grass), *Paspalum dilatatum* (dallis grass), *Paspalum paniculatum* (Russell river grass), *Sporobolus indicus* (smutgrass), *Tripsacum laxum* (Guatemala grass), *Urochloa [=Brachiaria] mutica* (para grass) and *Urochloa [=Brachiaria] subquadripara* (green summer grass). Two additional species of *Urochloa* were observed growing in unmanaged situations and along roadsides. Specimens were collected and the determinations will be advised at a later date. Unfortunately no fertile material could be found of a species that closely resembles *Urochloa [=Brachiaria] decumbens* (signal grass).

Allamanda cathartica (allamanda, yellow trumpet vine) is present but uncommon and not recorded on this survey. It is an ornamental species that is becoming invasive in northern Queensland, Australia, Palau and Papua New Guinea.

Annona glabra (pond apple) was seen planted at the Vaipapahi experimental farm.

Some small but dense stands of *Breynia disticha* (snowbush) were noted in the vicinity of mature cultivated plants. It is thought that this thickening up results from sucker regrowth. This species should be watched for naturalization.

Crotalaria pallida (pine kotalelia, pile, smooth crotalaria, smooth rattlebox) appears to have become much more widespread since the last survey. *Crotalaria micans* (pine kotalelia, pile) is also common. Dense stands of *Crotalaria verrucosa* (blue-flower rattlepod) were seen along the road near Taupa village where there was severe cyclone impact. The variety in Niue (and Rarotonga, Cook Islands) has white flowers. These are species that will take advantage of the cyclone disturbance but are considered largely benign by local people as they act to enrich the soil and are easily controlled. *Crotalaria verrucosa* should be monitored for spread to new areas.

Cuscuta campestris (golden dodder) was seen at both experimental farms and occasionally elsewhere.

Dieffenbachia seguine and/or *D. maculata* (dieffenbachia, dumb cane), common house and yard plants, were seen in cultivation in several locations. *D. seguine* is a problem in American Samoa and is reportedly present in the Cook Islands, Fiji, and Tonga. It grows well in low light and can invade the forest understory.

Eugenia uniflora (kafika, kafika palangi, Surinam cherry) was noted in the villages and occasionally elsewhere, but plants observed away from village areas appeared to be remnants of cultivation rather than wild plants. Fruit-eating birds probably spread the seeds. While this species can be invasive (it was observed spreading on the islands of Mangaia and Ma'uke, Cook Islands) the specimens on Niue do not look very healthy and do not appear to pose a threat.

Furcraea foetida (toua, Mauritius hemp) is widely naturalised on the southern part of the island and occasional examples are seen elsewhere.

Indigofera suffruticosa (indigo) is established on many Pacific islands and is a major weed species in Tonga. It is present but neither widespread nor abundant on Niue.

Lonicera japonica (Japanese honeysuckle) was seen cultivated in several locations. This species is a serious pest in a number of countries, is on the New Zealand noxious weed list and is banned from sale in that country. It can be spread both by birds and cuttings. However, it does not seem to reproduce well on low-elevation tropical islands, so is probably not much of a threat on Niue.

Momordica charantia (bitter-melon, balsam pear), a member of the cucumber family, is a climbing vine and its fruit can be the host for fruit flies. It is reported to be present but was not seen. Possibly it is present in cultivation.

Odontonema tubaeforme (fire spike, cardinal flower) is a widely cultivated ornamental that is invasive in the understory of moist forests in American Samoa and Samoa. It primarily spreads vegetatively, but over time can cover considerable area. Occasional plants were observed in cultivation.

Russelia equisetiformis (coral plant, fountain plant) is common, mostly along roadsides and is reported to have increased or at least become more conspicuous in recent years.

Syzygium cumini (Java plum) is present in cultivation. This species is invasive in the Cook Islands, Hawai'i and French Polynesia (Raiatea). *Syzygium jambos* (Malabar plum, rose

apple) is present as well and is a major invasive species in French Polynesia, the Galapagos Islands and the Indian Ocean islands of Mauritius and La Réunion.

Tillandsia usneoides (old man's beard, Spanish moss) was widely cultivated as a yard plant but most of it seems to have been blown away by the cyclone. Small numbers of plants were observed in some of the villages. It is a native of the southern United States, where it is widespread. Given the warm, moist climate of Niue, it has the potential to spread out of cultivation.

Tithonia diversifolia (matala, Mexican sunflower) is widespread along roadsides but it's a light-loving species and probably won't penetrate far into the forest. It has obviously increased since the previous survey and following the cyclone, and may well increase further in the short term, particularly in highly disturbed areas. Along with the introduced grasses it can contribute to the fuel loading and fire hazard, thus potentially opening up more areas for invasion.

Tradescantia spathacea (talotalo, laupapaki, boat lily) is widespread and invasive on Niue.

There are a large number of widespread weeds of roadsides, waste places and agriculture including *Bidens pilosa* (beggar's tick), *Centrosema molle* (centro), *Chamaesyce hirta* (garden spurge, hairy spurge), *Euphorbia cyathophora* (toto uli?, wild poinsettia), *Euphorbia heterophylla* (milkweed), *Macroptilium atropurpureum* (siratro), *Pilea microphylla* (artillery plant, rockweed), *Plantago lanceolata* (buckhorn plantain), *Ruellia prostrata* (black weed, bell weed), *Senna occidentalis* (coffee senna), *Synedrella nodiflora* (Cinderella weed) and *Vernonia cinerea* [= *Cyanthillium cinereum*] (ironweed).

3.4 Native species or Polynesian introductions exhibiting aggressive behaviour

Chrysopogon aciculatus (mosie fisi, moti fisi, Mackie's pest, lovegrass), indigenous or an early introduction, is an aggressive, noxious grass that readily withstands trampling, poor soils and mowing. Its sharp seeds can penetrate flesh and work their way in, causing festering sores. Its spiked seeds are carried from place to place in fur, feathers, or clothing. It is common on Niue but was inconspicuous throughout the survey because it was outside its main flowering season.

Ipomoea violacea [= *macrantha*] (fue tea, moonflower) is a widespread native vine.

Merremia peltata (fue, fue vao), indigenous or an early introduction, is quite invasive along forest edges. It is a light-loving opportunist that takes advantage of natural or human-caused disturbance. It was previously of limited extent on Niue, unlike many Pacific islands, but has taken at least temporary advantage of the cyclone disturbance to increase where it occurs and perhaps spread to new areas. Unless it overtops trees, though, it should be suppressed when the forest establishes a closed canopy. Where trees are in danger of being overtopped, cutting back the vines should give the tree the opportunity to recover. However, it will be a continuing problem in and adjacent to areas that are maintained as openings, such as the edges of fields, roads, etc. There, more aggressive action may be needed to control it. In any case, the species should be monitored and, if necessary, control action taken.

Operculina ventricosa (paper rose) is a native vine that through anecdotal reports appears to be increasing in abundance and vigour due to the cyclone and other disturbance.

Some probable Polynesian introductions (Whistler, 1988) include *Cardiospermum halicacabum* (balloon vine, heart pea), *Commelina diffusa* (commelina, dayflower), *Dioscorea bulbifera* (aerial yam), *Eleusine indica* (wiregrass), *Oxalis corniculata* (kihikihi, clover sorrel), *Physalis angulata* (manini, annual ground cherry) and *Sida rhombifolia* (mautofu, motofu, arrow-leaf sida).

3.5 Invasive species not known to be on Niue

Perhaps because of its location “off the beaten path”, many invasive species have yet to reach Niue. These are listed in Appendix 1, Table 5. The following list summarizes the worst of these.

Several *Acacia* species are invasive on other Pacific islands, notably *A. aulacocarpa* (brown salwood, brush ironbark wattle, hickory wattle), *A. crassicaarpa* (northern wattle, Papua New Guinea red wattle), *A. curassavica* (redwood), *A. farnesiana*, *A. mangium*, *A. mearnsii* (black wattle), *A. melanoxylon* and *A. nilotica*. A number of other *Acacia* species are recorded as invasive throughout the world, so caution should be exercised in planting members of this genus. Acacias are often introduced for forestry, wood supply or watershed protection purposes. The *Acacia spirorbis* planted as a yard tree on Niue does not appear to be a problem—only a few isolated examples away from houses were seen, and even those may have been on long-abandoned homesteads.

Albizia chinensis (Chinese albizia, silk tree) is exceptionally widespread in Samoa. Based on its behaviour in Samoa, other Pacific islands should be very cautious about introducing this tree.

Ardisia elliptica (shoebutt ardisia) is a problem species in the Cook Islands, Hawai‘i, French Polynesia, Samoa and the US (Florida). It produces prolific fruit and crowds out other species in the forest understory. Birds, which eat the fruit, are a major factor in its spread.

Two rubber trees, *Castilla elastica* (Panama rubber tree) and *Funtumia elastica* (African rubber tree), are very invasive in Samoa. *Castilla elastica* is present in French Polynesia as well. Birds spread the seeds of *Castilla* while those of *Funtumia* are wind-borne “parachute” seeds. The related species *Ficus elastica* is present in cultivation on Niue.

Cardiospermum grandiflorum (balloon vine; heart seed) is very invasive on Rarotonga, Cook Islands, and is reported to be invasive in Australia as well. Another species, *C. halicacabum*, is present on Niue.

Cecropia obtusifolia (trumpet tree, guarumo) is an invasive tree species that is a problem in Hawai‘i and the Cook Islands (Rarotonga). *Cecropia peltata* (trumpet tree), a similar species, is invasive in French Polynesia.

Cestrum diurnum (day cestrum, day jessamine, inkberry) is a bird-spread species that is a problem on a number of Pacific islands. It is often planted as an ornamental. *Cestrum nocturnum* (night-flowering cestrum) is already present on Niue.

Chromolaena odorata (chromolaena, Siam weed) is a highly invasive pan-tropical weed. It will likely show up in Niue at some point in time and should be promptly eradicated if found. It has small seeds that can travel on boots, clothing or used cars or equipment. Biological controls are available but are most effective in open areas, less so in shaded stands.

Cinnamomum verum [=zeilanicum] (cinnamon) is actively invading secondary forests in American Samoa and Samoa. It is also present and invasive in the Cook Islands (Rarotonga), Fiji, French Polynesia and Hawai'i. *Cinnamomum camphora* (camphor tree) is a serious pest in Australia and Florida (US).

Clerodendrum quadriloculare is an attractive ornamental and is commonly planted for that purpose. It is notorious for being a prolific producer of root suckers and, in fact, the plant is easily propagated by means of root cuttings. It is a potential problem because of its ability to invade intact or relatively intact native forests. It has become widespread on Pohnpei, Federated States of Micronesia. In Hawai'i it is becoming a problem ornamental, producing numerous root suckers that appear some distance from the parent plant.

Clidemia hirta (Koster's curse) is a serious problem species in Hawai'i and other locations. This is a very serious weed of the forest understory on many tropical islands and should be immediately eradicated if found. It is present in Samoa and American Samoa, Tonga and Vanuatu.

Coccinia grandis (ivy or scarlet gourd) is a smothering vine that is a serious problem on Saipan. The vines climb over trees and form such dense cover that the forest underneath is completely shaded out and destroyed. It is also invasive in Guam and Hawai'i and is reportedly present in Fiji and Vanuatu. It is a vegetable commonly used in southeastern Asian cooking and the plant is often introduced for that reason. It readily spreads vegetatively through cuttings and, if fruit is present, by birds and probably pigs.

Cordia alliodora (Ecuador laurel, salmwood) was introduced to Vanuatu as a forestry tree and has become a pest there (Tolfts, 1997). It has similarly been introduced and is widespread on the island of 'Eua, Tonga.

Cryptostegia grandiflora (rubber vine, India rubber vine) is a climbing vine that has become a serious problem in northeastern Queensland, Australia. Other vines that could be serious problems if introduced into Niue include *Thunbergia* species, *Passiflora* species not already present and non-native *Ipomoea* species.

Elaeocarpus angustifolius [=grandis] (blue fig, blue marble tree, quandong), a native of Australia, is a forestry tree that is invading intact and secondary forests in Samoa.

Erigeron karvinskianus (Mexican daisy, seaside daisy, daisy fleabane) is a major problem on Kauai and is spreading elsewhere in Hawai'i. It is also a serious weed on La Réunion.

Flemingia macrophylla and *F. strobilifera* (luck plant, wild hops) have been planted as ornamentals on a number of Pacific islands. Both of these species are prolific seed producers, have naturalised at several of the locations where they have been introduced, and have the potential to become a much more serious problem.

Hiptage benghalensis (hiptage) is a problem species in Hawai‘i and is reported to be a very invasive species on La Réunion and Mauritius. It is also becoming invasive in north Queensland, Australia. The seeds are wind-dispersed and it also can reproduce from cuttings.

Hyptis pectinata (mint weed) is a serious weed of disturbed sites and agriculture. Its seeds stick to clothing and to the fur of animals and can also be spread by vehicles and machinery. It is on the Hawaii State noxious weed list, is a noxious weed in Fiji, is very prevalent in Samoa and is becoming so in Tonga. A related species, *Hyptis capitata* (knobweed) is also quite invasive.

Imperata cylindrica (cogon grass) is a very serious invasive grass. It is present in Samoa, Tonga and Vanuatu.

Maesopsis eminii (musizi, umbrella tree) is a large African tree that has been introduced into some countries as a forestry tree. Fruit-eating birds (and possibly fruit bats) spread its seed and it has become a problem in a number of locations. It was introduced as a timber tree to Fiji, where it is starting to naturalize.

Miconia calvescens (the purple plague, velvetleaf) is undoubtedly the most destructive invasive plant in the Pacific. It has been a disaster to the forest ecosystems of Tahiti in French Polynesia and has subsequently spread to other islands in French Polynesia (Meyer and Florence, 1996). It has also escaped in Hawai‘i and is the subject of an intensive and costly eradication effort there. It recently was discovered in Queensland, Australia, where an eradication project is also under way. This species is an attractive garden plant and might be introduced this way or as tiny seeds on shoes or used equipment. The possibility of its accidental introduction to Niue as a contaminant of equipment and building supplies from French Polynesia should be kept in mind during future surveys.

Other members of the family Melastomataceae (including *Arthrostemma ciliatum* (everblooming eavender), *Heterocentron subtriplinervium* (pearl flower), *Medinilla magnifica* (chandelier tree), *Medinilla venosa* (holdtight), *Melastoma candidum* (Asian melastome, Indian rhododendron, Malabar melastome), *Melastoma sanguineum* (fox-tongued melastoma, red melastome), *Memecylon floribundum*, *Ossaea marginata*, *Oxyspora paniculata* (bristletips), *Tetrazygia bicolor* (Florida clover ash) and *Tibouchina urvilleana* (princess flower) that are not native or presently on Niue should also be excluded.

Mucuna pruriens (cow itch, velvet bean) is commonly introduced as a cover crop and for livestock feed. It is a serious problem on Saipan and is considered a weed species in Mexico, Mozambique, Jamaica and Madagascar. While the *utilis* variety commonly used in agriculture lacks irritating hairs it can apparently revert to type over time.

Passiflora tarminiana [formerly known as *P. mollissima* in Hawai‘i] (banana poka, banana passionfruit) is a smothering vine that is a problem in Hawai‘i and New Zealand. *P. mollissima* is a problem species in New Zealand. These species can smother the forest canopy when the sub-canopy vegetation is disturbed. *Passiflora rubra* (red passionfruit) is very invasive in the Cook Islands. Other *Passiflora* species not already present (*Passiflora alata* (wingstem passionflower), *Passiflora caerulea* (blue passionflower), *Passiflora coccinea* (scarlet passionflower), *Passiflora pulchella* (two-lobed passionflower), etc.) should also be excluded.

Pennisetum setaceum (fountain grass) is a major problem in Hawai'i. It is present in Fiji and French Polynesia. This species is often sold as an ornamental through seed catalogues.

Phyllostachys spp. and other running bamboos are not present on Niue. *Phyllostachys* and similar bamboo species spread by means of rhizomes, as opposed to bamboos that grow in clumps, and are extremely difficult to control or remove. *Phyllostachys nigra* (black bamboo) is a problem species in Hawai'i while *P. bissetii* is extremely invasive on the island of Mangaia, Cook Islands.

Pimenta dioica (allspice, pimento) is an invasive forest tree. The seeds are bird-dispersed. It is widespread in Tonga ('Eua), planted in Hawai'i (where it is naturalizing) and reported to be planted in French Polynesia and Fiji as well. *Pimenta racemosa* (bay rum tree), while less of a problem, readily naturalizes as well; for example, in the Cook Islands.

Piper aduncum (spiked pepper) is invasive in Fiji, Papua New Guinea, the Solomon Islands, Indonesia and Malaysia. Its tiny seeds are dispersed by birds and fruit bats and can be introduced into new areas on machinery, particularly logging equipment. Locally, it spreads by suckers, forming large clumps.

Piper auritum (eared pepper, also called "false kava") has been introduced to some Pacific islands as a fast-growing form of kava, but it is worthless in this regard. It is becoming widespread in Tonga and is presently subject of an eradication campaign on the island of Pohnpei, Federated States of Micronesia.. See also SPC Pest Alert No. 19, *False Kava* (http://www.spc.int/pps/PestAlerts/PestAlertNo19-False_Kava.pdf). The species produces many small seeds that can be spread by birds, rodents and bats and can also be introduced into new areas on machinery. It also suckers profusely, forming large clumps. Even if not introduced deliberately, with its very small seeds it might be brought in inadvertently.

Pithecellobium dulce (Madras thorn) is a thorny tree present in Hawai'i, Fiji and French Polynesia.

Pluchea carolinensis (sour bush) is a widespread pest species in Hawai'i, commonly invading almost every habitat type, and was seen naturalizing extensively on the islands of Tongatapu, Tonga, and Tarawa, Kiribati. The seeds are spread by wind and as contaminants of vehicles and machinery.

Psidium cattleianum (strawberry guava) is a small tree that forms dense thickets. It is a major problem species in a number of island ecosystems including Hawai'i, Fiji, Tahiti and Rarotonga and Mangaia in the Cook Islands. Varieties with red and yellow fruits are known.

All *Rubus* species (raspberries, blackberries, thimbleberries and brambles) should be excluded. These include *Rubus alceifolius* (giant bramble), invasive in Australia (Queensland) and La Réunion and native to Southeast Asia; *Rubus moluccanus* (Molucca bramble), a serious pest in the Mascarene Islands and native in New Guinea and *Rubus rosifolius* (roseleaf raspberry, thimbleberry), very invasive in French Polynesia and Hawai'i and also native to New Guinea. A number of other *Rubus* species are invasive. In Hawai'i, *R. argutus* (prickly Florida blackberry) and *R. niveus* (hill or Mysore raspberry) are problems. Introduced *Rubus* species (in particular, *R. niveus*) are a major problem in the Galapagos Islands. In general, where *Rubus* species are not present on tropical islands, they should not

be introduced. If already introduced, they should be evaluated as candidates for eradication. The vines form thorny thickets and the fruits are widely dispersed by birds.

Schefflera actinophylla (octopus tree) has bird-dispersed fruits and is invasive in Hawai'i, French Polynesia and elsewhere in Micronesia.

Schinus terebinthifolius (Christmas-berry, Brazilian pepper) is a major problem species in Hawai'i as well as Florida (US) and the Indian Ocean islands of La Réunion and Mauritius. The fruits are very attractive to birds, aiding its spread. It is present, though uncommon, in Guam.

Sesbania grandiflora (katurai, hummingbird tree, scarlet wisteria tree) is cultivated as an ornamental in American Samoa and Samoa and was observed to be spreading out of cultivation there.

Setaria palmifolia (palmgrass, short pitpit) is spectacularly invasive in Samoa, growing in dense, monospecific stands. It is also invasive in Tahiti and Hawai'i and is on the New Zealand noxious weed list. The seeds are dispersed by wind and possibly by granivorous birds.

Solanum capsicoides (cockroach berry, devil's apple, soda apple) has been introduced to several South Pacific islands as an ornamental. It is becoming well established in Tonga, particularly on Vava'u. Although small, it is quite spiny and would probably be a problem for agriculture as well as a general nuisance. It produces large amounts of small, tomato-like fruit. Spread may be by birds or pigs or by humans who use the fruit in lei-making.

Solanum mauritianum (bugweed, wild tobacco, tree tobacco) is quite prevalent throughout Tonga and is a noxious weed in South Africa. In Hawai'i, it is naturalised on slopes and ridges in disturbed wet forest.

Thunbergia grandiflora (blue trumpet vine, Bengal trumpet) is an aggressive vine that can smother trees. The plant forms large underground tubers and is difficult to eradicate because of regeneration from the tubers and root and stem fragments. It is a problem species in Australia (a noxious weed in Queensland), Palau and Singapore.

Tibouchina herbacea (glorybush or cane ti) is another species that is a major problem in Hawai'i.

Turnera ulmifolia (yellow alder, sage rose) is commonly planted as an ornamental throughout the Pacific region. The seed is reported to be carried by ants (Staples *et al.*, 2000) and the species is widely naturalised in the tropics.

In addition to the grasses mentioned above, a number of other potentially invasive grass species are not yet present on Niue, including *Andropogon glomeratus*, *Andropogon virginicus*, *Arundinaria graminea*, *Arundo donax*, *Axonopus micay*, *Brachiaria eruciformis*, *Cenchrus brownii*, *Chloris divaricata*, *Chloris radiata*, *Chloris virgata*, *Cortaderia jubata*, *Cortaderia selloana*, *Cymbopogon refractus*, *Cyrtococcum patens*, *Cyrtococcum trigonum*, *Dactylis glomerata*, *Digitaria bicornis*, *Digitaria eriantha*, *Digitaria fuscescens*, *Digitaria horizontalis*, *Digitaria insularis*, *Digitaria sanguinalis*, *Echinochloa polystachya*, *Echinochloa stagnina*, *Eragrostis cilianensis*, *Eragrostis elongata*, *Eragrostis pilosa*,

Eragrostis tenuifolia, *Eragrostis tremula*, *Eragrostis uniolooides*, *Eremochloa ophiuroides*, *Eriochloa procera*, *Eustachys petraea*, *Hymenachne amplexicaulis*, *Hyparrhenia rufa*, *Imperata conferta*, *Imperata cylindrica*, *Isachne globosa*, *Ischaemum polystachyum*, *Ischaemum rugosum*, *Ischaemum timorense*, *Leersia hexandra*, *Lolium multiflorum*, *Melinis repens*, *Microlaena stipoides*, *Neyraudia reynaudiana*, *Olyra latifolia*, *Oplismenus burmannii*, *Panicum decompositum*, *Panicum polygonatum*, *Panicum repens*, *Paspalum fimbriatum*, *Paspalum notatum*, *Paspalum setaceum*, *Paspalum urvillei*, *Pennisetum clandestinum*, *Pennisetum glaucum*, *Pennisetum macrourum*, *Pennisetum polystachion*, *Pennisetum setaceum*, *Rottboellia cochinchinensis*, *Saccharum spontaneum*, *Sacciolepis indica*, *Sacciolepis interrupta*, *Schizachyrium condensatum*, *Setaria barbata*, *Setaria italica*, *Setaria palmifolia*, *Setaria parviflora*, *Setaria pumila*, *Sorghum halepense*, *Sporobolus elongates*, *Sporobolus pyramidatus*, *Stenotaphrum secundatum*, *Themeda gigantea*, *Themeda quadrivalvis*, *Tripsacum latifolium*, *Urochloa [=Brachiaria] brizantha*, *Urochloa [=Brachiaria] decumbens*, *Urochloa [=Brachiaria] humidicola*⁶ and *Urochloa [=Brachiaria] reptans*. Grasses are easily introduced as contaminants in imported seed, imported sand and gravel or on used machinery, and by their nature tend to be invasive.

The best indicator that a species might be invasive is the fact that it is invasive elsewhere. However, each island ecosystem is unique and invasiveness cannot be predicted with certainty. A good strategy is to be extremely cautious and exclude these and other species known to be invasive or weedy (although the best strategy is to exclude all species not shown by risk assessment to be of acceptable risk). These and other known problem species that have the potential to cause problems in tropical island ecosystems and are not yet present in Niue are listed in Appendix 1, Table 5. These species should be excluded through plant quarantine and, if establishment is detected, promptly evaluated for eradication. In addition, species that are reported to be present in American Samoa, the Cook Islands, Fiji, French Polynesia, Samoa and Tonga but are not present in Niue are listed in Appendix 2. These species would be of high risk of introduction from any air and ship traffic between these points and Niue.

4.0 General observations and recommendations

The first line of defense against invasive species is to keep them out. Control at ports of entry is essential, and those concerned with the protection of natural ecosystems should work closely with plant protection and quarantine officials to combat known and potential invasive plant species. Plant quarantine officers should be familiar with both agricultural plant pests and those that threaten natural ecosystems. A list of known noxious species to be excluded should be developed and exclusion of these species should be backed by the force of law and regulation. Better yet is to utilize the “precautionary principle” (now used by Australia and New Zealand and under serious consideration by a number of other countries) to exclude all alien species not shown to be of acceptable risk. Risk assessment and management techniques can be used to assess the likelihood and effects of possible introductions and to develop exclusion and eradication strategies. Quarantine inspectors should continue their close inspection of boots, camping equipment and other material for soil and seeds, particularly when they have been used in countries where *Chromolaena odorata*, *Miconia calvescens* and other small-seeded species are present.

⁶ *Urochloa decumbens* may be present and naturalised along roadsides in Niue but only sterile material was collected; confirmation requires collection of flowering material. A species of *Urochloa* collected at two sites has been identified as *U. humidicola*. Verification awaits submission of the specimens to Queensland Herbarium.

At the time of the previous survey, Niue had formed an Invasive Species Committee. Consideration should be given to reconstituting this committee. Close coordination and cooperation between the various government Departments and Divisions is essential. Such a committee can be effective both for long-term strategic actions, such as review and strengthening of relevant laws and regulations, as well as short-term tactical and operational problems, such as action when a new species is found to have been introduced and publicity campaigns discouraging dumping of garden waste. In addition to a management plan, the committee should draw up a prioritized action plan. This would include critical areas to be protected and species subject to control or eradication as well as which governmental agency is to take the lead in control or eradication measures. Time, money and people are always in limited supply and must be directed to the places where they will do the most good. Economic analysis can be used to assess the costs and benefits of management strategies and prioritize action. Some recommendations are made below as to possible actions against individual plant species, but these should be tested against available resources and other priorities.

Foresters, conservation officers, extension agents and others that spend time in the field should be alert to new species that exhibit invasive behaviour. Most pest species are deliberately or inadvertently introduced by people and tend to first become established on farms or in gardens and disturbed areas. Suspicious plant species should be promptly reported. Periodically scheduled surveys can also be conducted for new or expanding infestations. A good time for surveys is immediately after the wet season to pick up any annual species before they die off during the dry season. An evaluation should be conducted for any new species that appears to be invasive or is known to be invasive elsewhere. Assistance by an expert who is familiar with the species and methods for its eradication or control should be requested if needed. Prompt action is essential, since once a species becomes widespread, control or eradication can be extremely costly or impossible. Assistance is also available on-line from experts through the Pacific Pestnet list-server.

Niue has laws and regulations in place to deal with quarantine and new introductions, but it would be appropriate for the Invasive Species Committee to review them to see if they might need to be strengthened. In the case of Niue, where most land is privately owned, the ability of government to require the control of noxious species on private lands or to take action on private lands if the landowner cannot be located or does not take prompt action is essential. Provision for emergency funds to deal with immediate problems should also be in place. New Zealand and some of its town councils have strong laws and regulations that can be used as models.

Steam cleaning or power washing of all used cars, trucks and equipment coming into Niue must be enforced. This is desirable not only from the standpoint of excluding invasive plants, but also insects and diseases. Especially suspect are roadbuilding machinery, military equipment and off-road vehicles. Quarantine inspectors should be especially vigilant to make sure used cars, trucks and equipment from Asia, Australia, Fiji, French Polynesia, New Zealand, Samoa and Tonga are clean as many dangerous weeds are present in these locations that are not yet in Niue. Likewise, importation of sand, gravel, seed and other easily contaminated material from outside the country should be subject to restriction, inspection and monitoring. Although the crushed rock imported from French Polynesia following the cyclone appeared on inspection to be weed-free, sites where it was used should be monitored.

A number of species used in ornamental plantings are, at least to some degree, invasive. While many of these species have desirable ornamental or physical characteristics, planting exotics as opposed to native species is a policy question that needs to be carefully considered. Most species that naturalize to any extent will gradually spread throughout available and suitable habitat, given enough time. Existing exotic species should be monitored for spread and new introductions should be carefully assessed to minimize risk.

It would be a good idea to review any records of introductions at the experimental farms or for forestry/agroforestry purposes against the list of known invasive species on the Pacific Island Ecosystems at Risk web site/CD. If there are introduced species of concern that were not found in this survey, the areas where they were planted can be searched to see if they are still present. In any case, areas previously used for agricultural and forestry species trials as well as other areas where exotic species have been planted should be more thoroughly checked for dangerous species than was possible during this survey.

Risk rating is useful in evaluating known and potential invasive species for their risk of introduction, spread and potential damage. The US Forest Service's Institute of Pacific Islands Forestry and the University of Hawai'i Botany Department have adapted the Australian risk assessment system to the needs of the Pacific. A large number of risk assessments have been developed and posted at the University of Hawai'i Botany web site (http://www.botany.hawaii.edu/faculty/daehler/wra/wra_input.asp) and also on the PIER web site and CD. Eventually we hope to rate all the species listed in the PIER database. In the meantime, risk assessments can be performed on individual species to help evaluate their potential for invasion and spread.

Niue has set aside areas to be maintained in natural condition as a heritage for future generations, for the protection of native biodiversity and tourism values and as examples of Niue's original forest cover. Protection of these areas will involve a continuous and long-term effort, even on a small scale, due to the continuing pressure from invading species. Keeping out shade-tolerant species that can invade closed forests and protection from fire are the biggest problems. Intact native forests are the most resistant to invasion and any measures that limit the amount of disturbance will help keep invasive species out of these areas. Planting of introduced species for 'beautification' of conservation areas increases the risk of escape of potential invasive species and should be discouraged.

Suggestions for public education and control and eradication strategies are given in a separate report (Newfield and Bull, in preparation). Strong quarantine enforcement, discouraging planting of certain species, prohibiting the introduction of dangerous species and educating the public about discarding garden cuttings would do a lot to protect Niue from invasive plants.

5.0 Species-specific recommendations

5.1 Management of invasive plants present on Niue

Table B shows the most serious invasive plant species in Niue and summarizes recommendations for their management. For priority species, more detailed information and recommendations follow the table.

Table B. Summary of major invasive species present in Niue with recommendations for their management

Scientific name (family)	Common names (abridged)	Comments and recommendations
<i>Adenanthera pavonina</i> (Fabaceae)	pomea, coral bean tree	Control as needed in natural areas.
<i>Allamanda cathartica</i> (Apocynaceae)	allamanda, yellow trumpet vine	Discourage planting; remove when a problem.
<i>Alternanthera brasiliana</i> (Amaranthaceae)	Brazilian joyweed	Discourage further planting; monitor spread; control outside of cultivation when a threat to sensitive or natural areas.
<i>Anacardium occidentale</i> (Anacardiaceae)	cashew nut	Monitor spread, control as needed.
*† <i>Annona glabra</i> (Annonaceae)	pond apple	Eliminate example at the Vaipapahi Farm if not needed.
* <i>Antigonon leptopus</i> (Polygonaceae)	chain of love, coral bells	Continue the eradication program until this species is eliminated.
*† <i>Asparagus setaceus</i> (Liliaceae)	ornamental asparagus	Strongly discourage further planting; determine distribution, destroy plants outside of cultivation. If public opinion is favourable, work to eradicate this species.
<i>Bryophyllum pinnatum</i> (Crassulaceae)	<u>tupu he lau</u> , <u>tupu noa</u> , life plant	Discourage further planting; determine distribution; control as needed outside of cultivation, especially when a threat to sensitive or natural areas.
<i>Calliandra sp.</i> (Fabaceae)	powderpuff, calliandra	Monitor for spread, discourage further planting, consider eliminating it if not widespread (several plants were observed at Vaipapahi) .
<i>Calotropis gigantea</i> (Asclepiadaceae)	calotrope, crown flower, madar	Monitor for spread.
<i>Casuarina equisetifolia</i> (Casuarinaceae)	<u>toa</u> , casuarina, ironwood, Australian pine	Monitor for further spread and control as necessary.
<i>Chamaecrista nictitans</i> (Fabaceae)	partridge pea	Control as needed in sensitive and natural areas.
<i>Clerodendrum chinense</i> (Lamiaceae)	Honolulu rose	Research control methodology; strongly discourage (prohibit?) additional planting and dumping of garden cuttings.
<i>Delonix regia</i> (Fabaceae)	pine, flame tree	Monitor reproduction and spread; discourage further planting; control in sensitive and natural areas as needed.
<i>Dieffenbachia spp.</i> (Araceae)	dieffenbachia, dumb cane	Discourage dumping of garden cuttings; control outside of cultivation as needed.
*† <i>Dissotis rotundifolia</i> (Melastomaceae)	dissotis, pink lady	Monitor site where previously found, eradicate immediately if found at this or any other location.
<i>Epipremnum pinnatum</i> cv. 'Aureum' [= <i>Scindapsus aureus</i>] (Araceae)	pothos, money plant	Continue the campaign to control outside of cultivation, especially when growing in forested areas.
<i>Eugenia uniflora</i> (Myrtaceae)	<u>kafika</u> , <u>kafika palangi</u> , Surinam cherry	Monitor for spread.
<i>Falcataria moluccana</i> (Fabaceae)	Moluccca albizia	Monitor reproduction and spread; discourage further planting; control in sensitive and natural areas as needed. Consider reducing the number of trees if not a desired species.
<i>Hemigraphis alternata</i> (Acanthaceae)	metal leaf, red ivy	Discourage further planting; determine distribution; control as needed outside of cultivation, especially when a threat to sensitive or natural areas.
<i>Hylocereus undatus</i> (Cactaceae)	night-blooming cereus, pitahaya	Discourage further planting; determine distribution; control as needed outside of cultivation, especially when a threat to sensitive or natural areas.
*† <i>Hyptis suaveolens</i> (Lamiaceae)	stinking Roger	Determine distribution, work with the manager of the Vaiea Farm to eradicate.
<i>Indigofera suffruticosa</i> (Fabaceae)	indigo	Monitor for spread.
<i>Justicia betonica</i> (Acanthaceae)	white shrimp plant	Discourage further planting; monitor spread; control outside of cultivation when a threat to sensitive or natural areas.
<i>Lantana camara</i> (Verbenaceae)	<u>talatala</u> , <u>talatala talmoa</u> , lantana	Check status of previously introduced biocontrol agents and reintroduce or introduce new ones as appropriate; local control as necessary.
<i>Leucaena leucocephala</i> (Fabaceae)	<u>pepe</u> , leucaena	Control as needed in sensitive and natural areas, particularly where it may inhibit natural reproduction; check status of leucaena psyllid.
* <i>Macfadyena unguis-cati</i> (Bignoniaceae)	cat's claw climber	Research control methodologies; determine distribution, initiate eradication project.
<i>Melia azedarach</i> (Meliaceae)	<u>sili</u> , <u>tili</u> , Chinaberry	Monitor for invasiveness.
<i>Melinis minutiflora</i> (Poaceae)	molasses grass	Monitor for spread, especially if burned; limit burning; reduce in forested areas and around structures as needed to reduce fire hazard.

Table B. Summary of major invasive species present in Niue with recommendations for their management

Scientific name (family)	Common names (abridged)	Comments and recommendations
<i>Merremia peltata</i> (Convolvulaceae)	fue, fue vao, fue kula, merremia (native)	Monitor for spread and overtopped trees, cut back vines as necessary; provide advice to landowners on appropriate control measures.
<i>Merremia tuberosa</i> (Convolvulaceae)	wood rose	Control in and near sensitive and natural areas.
<i>Mikania micrantha</i> (Asteraceae)	fue saina, mile-a-minute-weed, mikania	Investigate biological control when new techniques become available.
* <i>Mimosa diplotricha</i> (Fabaceae)	giant sensitive plant	Continue the eradication program until this species is eliminated.
<i>Mimosa pudica</i> (Fabaceae)	sensitive plant	Control locally as necessary.
<i>Murraya paniculata</i> (Rutaceae)	orange jessamine, Chinese box	Reduce the number of plants to prevent spread of the citrus psyllid if it should be introduced (currently being propagated at Vaipapahi).
<i>Panicum maximum</i> (Poaceae)	Guinea grass	Reduce in forested areas and around structures as needed to reduce fire hazard.
<i>Pennisetum purpureum</i> (Poaceae)	elephant grass	Reduce in forested areas and around structures as needed to reduce fire hazard.
<i>Pseuderanthemum caruthersii</i> (Acanthaceae)	false eranthemum	Discourage further planting; control outside of cultivation.
<i>Psidium guajava</i> (Myrtaceae)	kautoga, kautoga tane, lala, guava	Monitor for spread.
<i>Quisqualis indica</i> (Combretaceae)	Rangoon creeper	Monitor for invasiveness.
<i>Ricinus communis</i> (Euphorbiaceae)	tuitui, tuitui fua ikiiki, castor bean	Monitor spread; make sure the public is aware of the poisonous nature of this plant.
<i>Russelia equisetiformis</i> (Scrophulariaceae)	coral plant, fountain plant	Control where not wanted.
<i>Salvia coccinea</i> (Lamiaceae)	momili, red salvia	Control as needed in sensitive and natural areas.
<i>Salvia occidentalis</i> (Lamiaceae)	pupu elo, sealu, blue sage	Control as needed in sensitive and natural areas.
† <i>Senna siamea</i> (Fabaceae)	cassod tree	Monitor for invasiveness.
<i>Sorghum arundinaceum</i> (Poaceae)	wild sorghum	Reduce in forested areas and around structures as needed to reduce fire hazard.
*† <i>Spathodea campanulata</i> (Bignoniaceae)	African tulip tree	Strongly discourage planting; determine distribution, consider an eradication program or at least work to reduce the number of trees.
* <i>Sphagneticola [=Wedelia] trilobata</i> (Asteraceae)	Singapore daisy	Continue the eradication program until this species is eliminated.
<i>Stachytarpheta cayennensis</i> (Verbenaceae)	mautofu Samoa, motofu Samoa, blue rat's tail, dark blue snakeweed	Control as needed in sensitive and natural areas.
<i>Stachytarpheta jamaicensis</i> (Verbenaceae)	blue porterweed, light blue snakeweed	Control as needed in sensitive and natural areas.
<i>Syngonium podophyllum</i> (Araceae)	arrowhead plant, goosefoot plant	Control outside of cultivation, especially when growing in forested areas.
<i>Syzygium cumini</i> (Myrtaceae)	Java plum	Monitor for spread.
<i>Tecoma stans</i> (Bignoniaceae)	yellow bells, yellow trumpetbush	Monitor for spread.
<i>Thevetia peruviana</i> (Apocynaceae)	yellow oleander	Discourage further planting; monitor spread; control outside of cultivation when a threat to sensitive or natural areas
<i>Tithonia diversifolia</i> (Asteraceae)	matala, Mexican sunflower	Control in forested areas and around structures as needed to reduce fire hazard.
<i>Tradescantia zebrina</i> (Commelinaceae)	wandering jew	Discourage further planting and dumping; control outside of cultivation when a threat to sensitive or natural areas.

*High priority for eradication

†Eradication can probably be accomplished at low cost

- Excellent work has been done so far in the eradication campaigns against *Antigonon leptopus* (chain of love, coral bells), *Mimosa diplotricha* [=invisa] (giant sensitive plant) and *Sphagneticola* [=Wedelia] *trilobata* (wedelia, Singapore daisy). While eradication is

a long-term proposition and much remains to be done, eradication of these species will benefit Niue for years to come.

- Control of several grass species (*Melinis minutiflora* (molasses grass), *Panicum maximum* (Guinea grass), *Pennisetum purpureum* (elephant grass) and *Sorghum arundinaceum* (wild sorghum)) and stands of matala or Mexican sunflower (*Tithonia diversifolia*) may be necessary to reduce the fire hazard to structures and forested areas. This needs to go hand-in-hand with the prevention and suppression of wildfires, since fires can promote grass establishment, which then favours more fires (the island of Guam is an excellent example of where this has happened). Niue badly needs equipment to combat wildfires, such as those that occurred after cyclone Heta. They are in need of equipment for individual firefighters as well as a wild-land pumper truck. New grasses should be introduced only with great caution, as many of them are aggressive invaders and promote fire. Grass seed is also invariably contaminated with other grasses or weeds.
- Discourage the cultivation of *Asparagus setaceus* (ornamental asparagus), both as a house and yard plant and for such uses as planting around graves. Destroy any plants found growing in forests or other areas away from cultivation. Its behaviour on Tonga indicates that this plant has the potential to be a pest on Niue as well.
- *Adenanthera pavonina* (pomea, coral bean tree) will likely reproduce in gaps in the forest canopy created by the cyclone. Some control work may be needed if there is a desire to promote native trees in conservation areas.
- *Alternanthera brasiliana* (Brazilian joyweed), *Justicia betonica* (white shrimp plant) and *Thevetia peruviana* (yellow oleander) are naturalizing. Further planting of these species should be discouraged. They should be monitored for spread and some control action may be necessary to keep them out of natural and sensitive areas.
- *Bryophyllum pinnatum* (tupu he lau, tupu noa, life plant), *Hylocereus undatus* (night-blooming cereus, pitahaya), *Hemigraphis alternata* (metal leaf, red ivy) and *Tradescantia zebrina* (wandering jew) have escaped cultivation. They are not easy to eliminate and are of particular concern when they become established in rocky areas, making them almost impossible to remove. The latter two species are shade-tolerant and can invade the forest understory. At present, the infestations are mostly along roadsides, apparently as a result of beautification efforts and dumping of cuttings. These species should be controlled outside of cultivation, particularly where they are spreading into the rocks or forest. Public education about dumping cuttings will help prevent additional infestations.
- *Clerodendrum chinense* (Honolulu rose) is a serious problem, spreading from villages into surrounding areas and becoming established elsewhere. Research needs to be done on effective means of control. Some herbicides may be effective and a chrysomelid beetle, *Phyllocharis undulata*, is a prospective biocontrol agent (Julien, 1992; Waterhouse, 1993). Since this species is a problem elsewhere in the Pacific, information may be available from other countries or from SPC on control methods. Priority setting for effective use of resources will also be needed for this species.
- Unlike most Pacific islands, considerable reproduction of *Delonix regia* (pine, flame tree) was noted and it may be necessary to control this species where it is not wanted. Herbicide trials are under way on this species (Newfield and Bull, in preparation).

- *Dissotis rotundifolia* (dissotis, pink lady), collected across the road from Tapeu fisheries in 2000, was not found in the present survey. The site should be monitored and dissotis should be immediately eradicated if found at this or any other location.
- Significant work has been done on reducing the amount of *Epipremnum pinnatum* cv. 'Aureum' [= *Scindapsus aureus*] (pothos) in forested areas and other places where it is not desired. This species is widespread, so its control will be a long-term proposition. *Syngonium podophyllum* (arrowhead plant, goosefoot plant) is a species with similar characteristics that is less widespread but should be treated similarly. Public awareness about dumping cuttings will need to be an important component of this campaign to prevent new introductions. Since eradication of these species is not likely to be feasible, setting effective priorities for areas to control is needed to allow effective use of resources.
- Eradication action should be performed on the infestation of *Hyptis suaveolens* (stinking Roger) at the Vaiea Farm. The most appropriate time is mid to late wet season when plants will be conspicuous but before seed has matured. The farm manager has offered to do this, but the Department of Agriculture, Forestry and Fisheries should check the work.
- The status of biocontrol agents on *Lantana camara* (talatala, talatala talmoa, lantana) should be checked to make sure the most effective ones are present and active.
- *Leucaena leucocephala* (pepe, leucaena) is notable for its increase since the 2000 survey. Control may be needed to protect natural areas, particularly where it may inhibit the reproduction of native species. Elsewhere, control on a local basis may be needed where dense stands develop. The small numbers of leucaena plants growing along roadsides and in disturbed gaps of the Huvalu Conservation Area should be targeted for control. The leucaena psyllid (*Heteropsylla cubana*) was known to be on Niue, but its current status should be checked to make sure it is still present and functioning.
- The cat's-claw climber vine, *Macfadyena unguis-cati*, is not yet widespread on Niue, but the two infestations located are spreading. We were told that the orchard area across the road from Public Works is slated for development, which should take care of that part of the infestation. However, the material removed should be disposed of properly. The main infestation at Public Works and the one at the Vaipapahi Experimental Farm should be eliminated. This is a difficult species to eradicate and research will need to be done on effective control methods. This is a serious environmental weed in sub-tropical northeast New South Wales and southeast Queensland, so information may be available on methods used there.
- The native vine, *Merremia peltata* (fue, fue vao), is expanding in openings created by the cyclone. Its progress should be monitored and, if necessary, the vines may need to be cut back to prevent overtopping. If it proves more aggressive, further action may be needed. In any case, it will be a continuing problem where there is disturbance or where openings are maintained.
- There are several impressive infestations of wood rose (*Merremia tuberosa*) on Niue. While it doesn't seem to have spread significantly in the four years since the last survey, control of some of these infestations may be needed in the future.

- A rust fungus (*Puccinia spegazzinii*) is currently undergoing overseas trials as a biological control agent for *Mikania micrantha* (fue saina, mile-a-minute-weed, mikania). If these trials prove successful, introduction of the agent into Niue should be investigated.
- Discourage planting of *Falcataria mollucana* (Molluca albizia) and control unwanted regeneration. While this species generally spreads only slowly, it has become widespread on several Pacific islands.
- *Spathodia campanulata* is not a good tree for Niue, both from the standpoint of its invasiveness and its tendency to shed limbs, making it a danger in cyclones. Planting of additional trees should be strongly discouraged and, if possible, the existing trees eliminated. Herbicide treatment of the tree stumps should prevent sprouting, but additional work will be necessary to eliminate seedlings and suckers (see Newfield and Bull, in preparation).
- Discouraging planting, reducing existing populations, and selective control are appropriate strategies for a number of other species listed in Table B. In addition, species listed in Appendix 1, Table 3 are known pests and, although they may not be presently causing serious damage in Niue, they are certainly not desirable species. They should not be more widely distributed.
- Most forested areas are relatively free of invasive species. They could probably kept free of serious weed pests at relatively low cost. Conservation and other sensitive areas should be given high priority in this regard. Specific tracts of relatively intact forest (Huvalu, for example) or areas with a greater diversity of species (Lefuka) should be targeted as high priority areas to be protected, not only from invasive weed species but from conversion into crop lands. If these areas of native forest are lost, there will be a corresponding loss of other organisms, most notably the native fruit bats and pigeons. Not only are these species utilized as a food source by Niueans but they also serve as pollinators of the native tree species and then provide a means of dispersal for seed of the native trees. Conservation of these areas could be coupled with environmental education programs in the schools. Pristine areas serve not only conservation but also help promote tourism.

5.2 Cultivated plants of threat to Niue

The species listed in Table C, seen or reported to be only in cultivation, should be closely monitored for spread or, better yet, eradicated if there are only a few examples, as they are documented as invasives elsewhere. They may behave similarly in Niue if they escape cultivation.

Table C. Cultivated species of possible threat to Niue

Scientific Name	Common Names (abridged)	Family	Habit	Invasive in:
<i>Anredera cordifolia</i>	<u>filikafa</u> , Madeira vine	Basellaceae	vine	Australia, New Zealand
<i>Calliandra</i> sp.	powderpuff, calliandra	Fabaceae	shrub	Indonesia
<i>Calotropis gigantea</i>	calotrope, crown flower	Asclepiadaceae	shrub	Australia, Timor
<i>Cestrum nocturnum</i>	ike he po, night-flowering cestrum, night-flowering jasmine, queen (or lady) of the night	Solanaceae	shrub	Cook Islands, Fiji, French Polynesia, Samoa, Tonga
<i>Grevillea robusta</i>	silky oak	Proteaceae	tree	Hawai'i, French Polynesia
<i>Murraya paniculata</i>	orange jessamine, Hawaiian mock orange	Rutaceae	shrub/tree	SE Queensland (Australia). Alternative host to citrus psyllid
<i>Odontonema tubaeforme</i>	fire spike, cardinal flower	Acanthaceae	shrub	American Samoa, French Polynesia, Samoa
<i>Passiflora laurifolia</i>	yellow granadilla	Passifloraceae	vine	Hawai'i
<i>Pseuderanthemum carruthersii</i>	false eranthemum	Acanthaceae	shrub	Palau
<i>Quisqualis indica</i>	Rangoon creeper	Combretaceae	vine	Australia (Northern Territory)
<i>Sambucus mexicana</i>	elderberry, Mexican elder	Caprifoliaceae	small tree	American Samoa, Samoa, Tonga
<i>Senna alata</i>	<u>mulamula</u> , candle bush	Fabaceae	shrub	Australia, Papua New Guinea
<i>Senna siamea</i>	cassod tree, Siamese cassia	Fabaceae	tree	Australia, French Polynesia (Tahiti)
<i>Syzygium cumini</i>	Java plum; jambolan plum	Myrtaceae	tree	Cook Islands, French Polynesia
<i>Syzygium jambos</i>	malabar plum, rose apple	Myrtaceae	tree	French Polynesia, Galapagos Islands, La Reunion, Mauritius
<i>Tecoma stans</i>	yellow bells, yellow-elder, yellow trumpetbush	Bignoniaceae	small tree	Australia

Note: See Appendix 1, Tables 2, 3 and 4 for a complete list of cultivated plants with invasive potential.

5.3 Prevention of introductions

- Maintain the high quarantine standards that Niue has established. Exclusion is the most cost-effective strategy for dealing with pest species.
- Make every effort to keep out all the species listed in Appendix 1, Table 5. All of these are known invasive species elsewhere, and there is no sense in running the risk that they will act the same in Niue. As we are able to gather information on other species that might threaten tropical island ecosystems we will add them to the Pacific Island Ecosystems at Risk database. For those with Internet access, additional information and new listings can be found at <http://www.hear.org/pier>. The information is also available on the PIER-CD for local use. Assistance from experts in identifying and managing invasive species is available by using the Pacific Pestnet list server.
- Take special measures to keep out the species listed in Table D, to monitor for their occurrence and to eradicate them immediately if found. These are all documented problem species that are likely to have the greatest impact on the biodiversity of Niue. The potential impact of these species, if they are introduced and become established, can be severe. In addition, there are a large number of other species listed in Appendix 1, Table 5, that would not be desirable if introduced to Niue.

Table D. Priority species for exclusion from Niue

Scientific Name	Common Names (abridged)	Family	Habit	Invasive in:
<i>Acacia aulacocarpa</i>	brown salwood	Fabaceae	tree	Cook Islands
<i>Acacia auriculiformis</i>	Papuan wattle, earleaf acacia	Fabaceae	tree	US
<i>Acacia crassicarpa</i>	northern wattle, Papua New Guinea red wattle	Fabaceae	tree	Cook Islands
<i>Acacia curassavica</i>	redwood	Fabaceae	tree	Cook Islands
<i>Acacia farnesiana</i>	Ellington curse, klu, sweet acacia	Fabaceae	shrub	Fiji, French Polynesia, New Caledonia, Solomon Islands, Vanuatu
<i>Acacia mangium</i>	mangium, brown salwood	Fabaceae	tree	Cook Islands
<i>Albizia chinensis</i>	Chinese albizia, silk tree	Fabaceae	tree	Hawai'i, Samoa, Mauritius
<i>Araujia sericifera</i>	moth plant, white bladder flower	Asclepiadaceae	vine	Australia, New Zealand, US
<i>Ardisia crenata</i>	hen's eyes, Hilo holly, coral berry	Myrsinaceae	shrub	Hawai'i
<i>Ardisia elliptica</i>	shoebuttan ardisia	Myrsinaceae	shrub	Australia, Cook Islands, Samoa
<i>Argyrea nervosa</i>	elephant creeper, Hawaiian baby woodrose	Convolvulaceae	vine	Australia
<i>Cardiospermum grandiflorum</i>	balloon vine; heart seed	Sapindaceae	vine	Cook Islands
<i>Castilla elastica</i>	Panama rubber tree	Moraceae	tree	Samoa
<i>Cecropia obtusifolia</i>	trumpet tree, guarumo	Cecropiaceae	tree	Hawai'i, Cook Islands
<i>Cecropia peltata</i>	trumpet tree	Cecropiaceae	tree	French Polynesia
<i>Cestrum diurnum</i>	inkberry, day cestrum, China berry	Solanaceae	shrub	Cook Islands
<i>Chromolaena odorata</i>	chromolaena, Siam weed	Asteraceae	shrub	Pantropical
<i>Cinnamomum camphora</i>	camphor tree, camphor laurel	Lauraceae	tree	Australia, US
<i>Cinnamomum verum</i>	cinnamon tree	Lauraceae	tree	American Samoa, Cook Islands, Samoa
<i>Clerodendrum quadriloculare</i>	bronze-leaved clerodendrum	Lamiaceae	shrub	Micronesia
<i>Clidemia hirta</i>	Koster's curse, soap bush	Melastomataceae	shrub	American Samoa, Fiji, Hawai'i, Palau, Papua New Guinea, Samoa, Solomon Islands, Vanuatu
<i>Coccinia grandis</i>	ivy gourd, scarlet-fruited gourd	Cucurbitaceae	vine	Saipan, Hawai'i
<i>Cordia alliodora</i>	laurel, Ecuador laurel, salmwood	Boraginaceae	tree	Samoa, Tonga, Vanuatu
<i>Cryptostegia grandiflora</i>	rubber vine, India rubber vine	Asclepiadaceae	vine	Australia (Queensland)
<i>Elaeocarpus angustifolius</i>	blue fig, blue marble tree, quandong	Elaeocarpaceae	tree	Samoa
<i>Erigeron karvinskianus</i>	Mexican daisy, daisy fleabane	Asteraceae	herb	Hawai'i, La Réunion
<i>Flemingia macrophylla</i>		Fabaceae	tree	Samoa, Cook Islands
<i>Flemingia strobilifera</i>	luck plant, wild hops	Fabaceae	shrub	French Polynesia
<i>Funtumia elastica</i>	African rubber tree, silk rubber	Apocynaceae	tree	Samoa
<i>Hiptage benghalensis</i>	hiptage	Malpighiaceae	shrub	Hawai'i, La Réunion, Mauritius, Australia
<i>Hyptis pectinata</i>	comb hyptis, mint weed	Lamiaceae	herb	Fiji, Samoa, Tonga
<i>Imperata cylindrica</i>	blady grass, cogon grass, satintail	Poaceae	grass	Many locations
<i>Maesopsis eminii</i>	umbrella tree, musizi	Rhamnaceae	tree	Fiji
<i>Miconia calvescens</i>	miconia, velvetleaf, purple plague, bush currant	Melastomataceae	tree	French Polynesia, Hawai'i
<i>Mucuna pruriens</i>	cow itch, velvet bean, Bengal bean, Mauritius bean	Fabaceae	vine	Saipan
<i>Ocimum gratissimum</i>	wild basil	Lamiaceae	herb	Cook Islands
<i>Passiflora rubra</i>	red passionfruit	Passifloraceae	vine	Cook Islands
<i>Passiflora tarminiana/molissima</i>	banana poka, banana passionfruit, bananadilla	Passifloraceae	vine	Hawai'i, New Zealand

Table D. Priority species for exclusion from Niue

Scientific Name	Common Names (abridged)	Family	Habit	Invasive in:
<i>Pennisetum setaceum</i>	fountain grass	Poaceae	grass	Hawai'i
<i>Phyllostachys</i> spp.	running bamboos	Poaceae	shrub	Cook Islands, Hawai'i
<i>Pimenta dioica</i>	pimento, allspice	Myrtaceae	tree	Hawai'i, Tonga
<i>Pimenta racemosa</i>	bay rum tree, bay oil tree, malagueta	Myrtaceae	tree	Cook Islands
<i>Piper aduncum</i>	spiked pepper	Piperaceae	shrub/ tree	Fiji, Papua New Guinea, Solomon Islands, Indonesia, Malaysia
<i>Piper auritum</i>	eared pepper	Piperaceae	shrub	Hawai'i, Pohnpei, Samoa, Tonga
<i>Pithecellobium dulce</i>	Madras thorn	Fabaceae	tree	Hawai'i, Fiji, French Polynesia
<i>Pluchea carolinensis</i>	sour bush	Asteraceae	shrub	Hawai'i, Tonga
<i>Psidium cattleianum</i>	strawberry guava	Myrtaceae	tree	Hawai'i, French Polynesia, La Réunion, Mauritius
<i>Rubus</i> spp.	raspberries, blackberries, brambles	Rosaceae	shrubs	Hawai'i, French Polynesia, etc.
<i>Schefflera actinophylla</i>	octopus tree, umbrella tree, ivy palm	Araliaceae	tree	French Polynesia, Hawai'i, Micronesia
<i>Schinus terebinthifolius</i>	Brazilian pepper	Anacardiaceae	tree	Hawai'i, US (Florida)
<i>Sesbania grandiflora</i>	sesbania, hummingbird tree, sesban	Fabaceae	small tree	Samoa
<i>Setaria palmifolia</i>	palmgrass	Poaceae	grass	Hawai'i, French Polynesia (Tahiti), Samoa
<i>Solanum capsicoides</i>	cockroach berry, soda apple	Solanaceae	herb	Hawai'i, Samoa, Tonga
<i>Solanum mauritianum</i>	bugweed, wild tobacco, tree tobacco	Solanaceae	shrub	Hawai'i, Tonga
<i>Thunbergia grandiflora</i>	Bengal trumpet, blue trumpet vine, clock vine	Acanthaceae	vine	Palau
<i>Tibouchina herbacea</i>	glorybush, cane ti, tibouchina	Melastomataceae	shrub	Hawai'i
<i>Tribulus cistoides</i>	puncture vine, caltrop, goat's head	Zygophyllaceae	herb	Hawai'i
<i>Turnera ulmifolia</i>	yellow alder, sage rose	Turneraceae	shrub	Fiji, Kiribati, Palau
All grasses	all other grass species not already present	Poaceae	grasses	Pan-tropical
All melastomes	all other non-native melastomes	Melastomataceae		Hawai'i, etc.

Note: Appendix 1, Table 5 is a complete list of invasive and potentially invasive species not yet present on Niue.

- Extraordinary measures need to be employed against *Miconia calvenscens* because its effect on Niue's ecosystems would be devastating if introduced. At a minimum, quarantine officers should be alert to people who might have been in the woods or rural areas in Hawai'i (especially the island of Hawai'i) or French Polynesia (particularly the islands of Tahiti, Moorea, Raiatea and Taha'a) and inspect their shoes, boots or camping equipment for seeds. Any trucks or equipment coming from French Polynesia (or less likely, Hawai'i), particularly those that have been used in rural areas, must be thoroughly power washed or steam cleaned and inspected. Any infestations picked up from public reporting or scouting should be promptly eradicated before the plants set seed. Fortunately, this species is very distinctive and easy to identify.
- Be very cautious in introducing new grasses, as many of them are aggressive invaders. Also, grass seed is invariably contaminated with other, possibly invasive, grasses or weeds.

5.4 Other recommendations

- Intact native forests are the most resistant to invasion. At the present time, they have been impacted by cyclone Heta, but recovery already has been dramatic. Any measures that limit additional disturbance will help keep invasive species out.
- Risk assessment is useful in evaluating known and potential invasive species for their risk of introduction, spread and potential damage. If a risk assessment has not already been done on a species of interest, it can be conducted or requested.
- The purpose of this survey was to give an overall assessment of the situation. Some of the individual species of concern may need to be more fully evaluated as to their extent, invasiveness, and the possibility for control or eradication. Technical assistance should be requested, if needed, to evaluate individual species and, if appropriate, to develop management strategies.

Appendix 1

Table 1. Species that are subjects of control and eradication programs

Scientific Name	Common Names (abridged)	Family	Habit	Sykes (1970)	Whistler (1988)	Whistler (1997)	Space & Flynn (2000)	This survey (2004)
Antigonon leptopus	English: Mexican creeper, mountain rose, Confederate vine, chain-of-love, hearts on a chain, love-vine, coral bells, coral vine	Polygonaceae	vine	X			X	X
Clerodendrum chinense	English: Honolulu rose, stickbush, glory bower; Other: losa Honolulu, losa Onolulu (American Samoa and Samoa); pitate mama'o, tiare tupapaku? (Cook Islands); pikake hohono, pikake wauke (Hawai'i)	Lamiaceae	shrub	X	X	X	X	X
Epipremnum pinnatum cv. 'Aureum'	English: pothos, money plant; Other: 'ara (Cook Islands (Ma'uke)); alu (Tonga)	Araceae	vine	X			X	X
Mimosa diplotricha	English: giant sensitive plant, nila grass; Other: vao fefe palagi (American Samoa and Samoa); pikika'a papa'a (Cook Islands (Aitutaki)); la'au fefe palagi (Samoa)	Fabaceae	shrub				X	X
Sphagneticola trilobata	English: wedelia, trailing daisy, Singapore daisy, creeping ox-eye; Other: ate (Tonga)	Asteraceae	herb				X	X

Table 2. Species that are known to be invasive and are of particular concern on Niue

Scientific Name	Common Names (abridged)	Family	Habit	Sykes (1970)	Whistler (1988)	Whistler (1997)	Space & Flynn (2000)	This survey (2004)
Adenanthera pavonina	Niuean: pomea; English: coral bean tree, red sandalwood tree, red bead tree, lopa, bead tree, false wiliwili, peacock flower-fence, Polynesian peanut; Other: lopa (American Samoa, French Polynesia, Samoa and Tonga); mata koviriviri (Cook Islands); koviriviri, tavara (Cook Islands (Mangaia)); pitipiti'o (Cook Islands ('Atiu)); 'au paina, pitipitio (French Polynesia); hua'ula'ula (Hawai'i)	Fabaceae	tree	X		X	X	X
Alternanthera brasiliana	English: Brazilian joyweed, Joseph's coat	Amaranthaceae	herb					X
Anacardium occidentale	English: cashew, cashew nut; Other: katu (Cook Islands); 'apu 'initia (Samoa); 'apu, kesiu (Tonga)	Anacardiaceae	tree	X			X	X
Asparagus setaceus	English: ornamental asparagus, climbing asparagus fern, plumosa; Other: remu (Cook Islands); taupo 'ou (Tonga)	Liliaceae	vine				X	X
Bryophyllum pinnatum	Niuean: tupu he lau, tupu noa; English: life plant, air plant, resurrection plant, Canterbury bells, cathedral bells, Mexican love plant; Other: nganga'ere toka (Cook Islands); 'oliwa ku kahakai (Hawai'i); pagi (Samoa); pipi vao (Tonga)	Crassulaceae	succulent	X	X	X	X	X
Chamaecrista nictitans	English: partridge pea, Japanese tea senna; Other: lauki (Hawai'i)	Fabaceae	shrub	X	X	X	X	X
Delonix regia	Niuean: pine; English: flame tree, flamboyant, poinciana; Other: patai (Cook Islands (Rarotonga, Mangaia, Aitutaki, Penrhyn, Manihiki, Rakahanga)); raakau taamarumaruru, taamarumaruru, (Cook Islands (Atiu)); pukakai (Cook Islands (Aitutaki)); puu pii (Cook Islands (Ma'uke)); marumaruru (Cook Islands (Miti'aro)); pakai, puke (Tahiti, French Polynesia); 'ohai 'ula (Hawai'i); tamaligi (Samoa); 'ohai (Tonga); fua tausaga (Tuvalu)	Fabaceae	tree	X			X	X
Dissotis rotundifolia	English: dissotis, Spanish shawl, pink lady	Melastomataceae	herb				X	
Falcataria moluccana	English: Molucca albizia; Other: tamaligi palagi (American Samoa); 'arapitia (Cook Islands); tamaligi paepae (Samoa)	Fabaceae	tree	X			X	X
Hemigraphis alternata	English: metal leaf; red ivy, cemetery plant (Fiji); Other: suipi (American Samoa and Samoa)	Acanthaceae	herb	X	X		X	X
Hylocereus undatus	English: night-blooming cereus, strawberry pear, red pitaya, dragon fruit, pitahaya; Other: paniniokapunahou, papipi pua (Hawai'i)	Cactaceae	succulent	X			X	X
Hyptis suaveolens	English: stinking Roger, wild spikenard, chan	Lamiaceae	herb					X
Justicia betonica	English: white shrimp plant, squirrel's tail	Acanthaceae	herb					X
Lantana camara	English: lantana; Other: latana (American Samoa and Samoa); tataramoia papa'a (Cook Islands); tataramoia (Cook Islands, French Polynesia); tarataramoia, taratara hamoa (French Polynesia); latoramoia (French Polynesia (Tahiti)); lakana, la'au kalakala, lanakana (Ni'ihau), mikinolia hihiu, mikinolia hohono, mikinolia kuku (Hawai'i); talatala, talatala talmoa (Tonga)	Verbenaceae	shrub	X	X	X	X	X

Table 2. Species that are known to be invasive and are of particular concern on Niue

Scientific Name	Common Names (abridged)	Family	Habit	Sykes (1970)	Whistler (1988)	Whistler (1997)	Space & Flynn (2000)	This survey (2004)
Leucaena leucocephala	Niuean: pepe; English: leucaena, wild tamarind, lead tree; Other: fua pepe (American Samoa and Samoa); nito, mara'inu (Cook Islands); atiku (French Polynesia (Marquesas)); koa haole, lili-koa, ekoa (Hawai'i); pepe (Samoa); lusina (Samoa); siale mohemohe (Tonga)	Fabaceae	tree	X	X	X	X	X
Macfadyena unguis-cati	English: cat's-claw climber	Bignoniaceae	vine				X	X
Melia azedarach	Niuean: sili; English: Chinaberry, pride-of-India, indian lilac, Persian lilac, white cedar, margosa tree, tira; Other: tira (Cook Islands); 'inia, 'ilinia (Hawai'i); sita (Tonga)	Meliaceae	tree	X			X	X
Melinis minutiflora	English: melinis, molasses grass; Other: puakatau (Tonga)	Poaceae	grass	X	X		X	X
Merremia tuberosa	English: wood rose, Spanish arborvine, yellow morning-glory; Other: pilikai (Hawai'i)	Convolvulaceae	vine	X			X	X
Mikania micrantha	Niuean: fue saina; English: mile-a-minute weed, Chinese creeper, American rope, bittervine; Other: fue saina (American Samoa, Samoa); pokutekute (Cook Islands ('Atiu))	Asteraceae	vine	X	X	X	X	X
Mimosa pudica		Fabaceae	herb	X	X	X	X	X
Panicum maximum	English: Guinea grass, green panic, buffalograss; Other: vao kini (American Samoa and Samoa); tinikarati (Cook Islands); talapi? (Cook Islands (Ma'uke); saafa (Tonga)	Poaceae	grass	X	X		X	X
Passiflora foetida	Niuean: vine vao; English: love-in-a-mist, wild passion fruit, passionflower, stinking passionflower; Other: pasio vao (American Samoa and Samoa); pohapoha (Hawai'i); lani wai (Hawai'i (Ni'ihau)); vaine 'initia (Tonga)	Passifloraceae	vine		X	X	X	X
Pennisetum purpureum	English: elephant grass, napier grass, merker grass; Other: 'erepani (Cook Islands ('Atiu)); vao povi (Samoa)	Poaceae	grass	X	X		X	X
Psidium guajava	Niuean: kautoga, kautonga, kautoga tane, kautonga tane, lala; English: guava; Other: ku'ava (American Samoa, Tonga, Tuvalu, Fiji, Samoa); tuava, tuvava (Cook Islands, French Polynesia); tumu tuava (French Polynesia); kuawa, kuawa ke'oke'o, kuawa lemi, kuawa momona, pauwa (Hawai'i)	Myrtaceae	tree	X	X	X	X	X
Ricinus communis	Niuean: tuitui fua ikiiki?; English: castor bean, castor-oil plant; Other: lama palagi, lama papalagi (American Samoa and Samoa); tuitui papa'a (Cook Islands); koli, pa'aila, ka'apeha, kamakou, la'au, 'aila (Hawai'i); lepo, lepohina (Tonga)	Euphorbiaceae	shrub	X	X		X	X
Salvia coccinea	Niuean: momili; English: red salvia, red sage, scarlet sage, Texas sage, tropical sage; Other: titania (Cook Islands (Ma'uke)); lililehua (Hawai'i); te'ekosi (Tonga)	Lamiaceae	herb	X	X	X		X
Salvia occidentalis	Niuean: pupu elo, sealu; English: blue sage, West Indian sage; Other: mauku 'aunga-kino (Cook Islands (Ma'uke)); te'ekosi totolo (Tonga)	Lamiaceae	herb	X	X	X		X
*Senna siamea	English: cassod tree, kassod tree, Siamese cassia, pheasantwood, Thailand shower; Other: kasia (Tonga)	Fabaceae	tree					X
Senna tora	English: foetid cassia, stinking cassia, Java-bean, sickle senna, sicklepod, Chinese senna, peanut weed, sickle senna; Other: vao pinati (American Samoa and Samoa); pi 'aungakino (Cook Islands (Ma'uke)); te'epulu, tengafefeka (Tonga)	Fabaceae	shrub			X	X	X

Table 2. Species that are known to be invasive and are of particular concern on Niue

Scientific Name	Common Names (abridged)	Family	Habit	Sykes (1970)	Whistler (1988)	Whistler (1997)	Space & Flynn (2000)	This survey (2004)
Solanum torvum	English: prickly solanum, devil's fig, turkeyberry, terongan; Other: tisaipale (Tonga); lapiti (Samoa)	Solanaceae	shrub	(1975)	X			
Sorghum arundinaceum	English: common wild sorghum, kavirondo sorghum (Fiji)	Poaceae	grass	X	X	X	X	X
Spathodea campanulata	English: African tulip tree, fireball, fountain tree; Other: ko'i'i, mimi, patiti vai (Cook Islands); mata ko'i'i (Cook Islands (Mangaia)); fa'apasi (Samoa); tiulipe (Tonga)	Bignoniaceae	tree	X			X	X
Stachytarpheta cayennensis	Niuean: mautofu Samoa, motofu Samoa?; English: blue rat's tail, dark-blue snakeweed, false verbena, nettleleaf velvetberry; Other: mautofu tai, mautofu vao, mautofu fualanumoana (American Samoa and Samoa); tiaki (Cook Islands (Miti'aro)); hiku 'i kuma, hiku'kuma, 'iku 'i kuma, iku 'ikuma (Tonga)	Verbenaceae	herb	X	X	X	X	X
Stachytarpheta jamaicensis	English: bastard vervain, blue porterweed, Brazilian tea, Jamaica vervain, joe, light blue snakeweed; Other: owi, oi (Hawaii)	Verbenaceae	herb		X		X	X
Syngonium podophyllum	English: arrowhead plant, goosefoot plant	Araceae	vine				X	X
Thevetia peruviana	English: yellow oleander, be-still tree, lucky nut; Other: venevene (Cook Islands (Mangaia)), 'enere (Cook Islands (Ma'uke, Miti'aro)); nohomalie (Hawaii)	Apocynaceae	small tree	X			X	X
Tithonia diversifolia	Niuean: matala; English: tree marigold, shrub sunflower, Mexican sunflower, Japanese sunflower; Other: pua renga (Cook Islands); tiare rengarenga (Cook Islands (Aitutaki)); kavakava, pua renga (Cook Islands (Ma'uke))	Asteraceae	shrub	X	X	X	X	X
Tradescantia spathacea	Niuean: laupapaki; English: oyster plant, boat plant, boat lily, moses in a boat; Other: riri mangio (Cook Islands (Ma'uke)); riri raei (Cook Islands (Miti'aro)); talotalo?, faina kula (Tonga)	Commelinaceae	herb	X		X	X	X
Tradescantia zebrina	English: wandering zebrina, wandering jew, inchplant; Other: mauku papa'a (Cook Islands (Mangaia))	Commelinaceae	herb	X			X	X

*Cultivated

Table 3. Other species that are known to be invasive or weedy and are present on Niue

Scientific Name	Common Names (abridged)	Family	Habit	Sykes (1970)	Whistler (1988)	Whistler (1997)	Space & Flynn (2000)	This survey (2004)
Abrus precatorius	Niuean: mata'ila, pomea mataila; English: bead vine, coral bead plant, jequirity bean, licorice vine, lucky bean, precatory bean, rosary pea, weatherplant; Other: pitipitio (Cook Islands (Rarotonga)), koviriviri mata-tako (Cook Islands (Mangaia)), uiui (Cook Islands ('Atiu, Miti'aro, Ma'uke)), Kirikiri Rangi (Cook Islands (Aitutaki)); pukiawe, pukiawe lei, pukiawe lenalena [Ni'ihau], pupukiawe (Hawai'i); matamoso (Samoa)	Fabaceae	vine	X		X		
Abutilon grandifolium	English: hairy abutilon	Malvaceae	shrub	X				X
Acalypha indica	Niuean: ongoongo, hongohongo; English: copperleaf, Indian-nettle, ricinela	Euphorbiaceae	herb	X	X		X	X
Ageratum conyzoides	Niuean: sekose sea; English: billygoat-weed, chick week, goatweed, whiteweed; Other: maire vaihi (French Polynesia); maile hohono, maile honohono, maile kula (Hawai'i); a'amia, tae'oti (Samoa); te'ehosi (Tonga)	Asteraceae	herb	X	X	X		X
Allamanda cathartica	English: yellow trumpet vine, golden trumpet, allamanda, brownbud allamanda, golden allamanda, golden cup; Other: pua taunofo (American Samoa and Samoa), tiare rengarenga, pua (Cook Islands); lani-ali'i (Hawai'i)	Apocynaceae	vine	X			X	
Alpinia purpurata	English: red ginger; Other: kopi muramura (Cook Islands); 'awapuhi 'ula'ula (Hawai'i); teuila (Samoa); tevunga (Tonga)	Zingiberaceae	herb	X				X
Alysicarpus vaginalis	English: alyce-clover, buffalo-clover, one-leaf-clover	Fabaceae	herb		X			X
Amaranthus blitum	English: amaranth, livid amaranth, slender amaranth; Other: tupu'a (Tonga)	Amaranthaceae	herb		X			
Amaranthus viridis	English: green amaranth, pigweed, slender amaranth; Other: va'ine 'ara (Cook Islands); pakai, 'aheahea, pakaikai, pakapakai (Hawai'i); 'au tasi (Samoa); tupu'a (Tonga)	Amaranthaceae	herb	X	X			X
*Angelonia salicariifolia	English: willowleaf angelon, grannie's bonnets, angelon	Scrophulariaceae	herb					X
*Annona glabra	English: pond apple, alligator apple, bullock's heart, cherimoyer	Annonaceae	tree					X
*Annona reticulata	Niuean: talopo; English: bullock's-heart, custard-apple	Annonaceae	tree	X				
*Annona squamosa	Niuean: talopo; English: sugar apple, sweetsop, custard apple, sugar apple; Other: tapotapo (Cook Islands, French Polynesia); tapotapo Maori (Cook Islands); katara'apa Maori (Cook Islands (Mangaia)); naponapo Maori (Cook Islands (Aitutaki)); 'apele papalangi, 'apele Tonga (Tonga), nameana (Tuvalu)	Annonaceae	tree	X			X	X
*Anredera cordifolia	Niuean: filikafa; English: Madeira vine, mignonette vine, lamb's tails; Other: tapau (Cook Islands ('Atiu)); 'uala hupe (Hawai'i)	Basellaceae	vine	X				
Argemone mexicana	English: Mexican prickly-poppy, Mexican poppy, prickly poppy, yellow thistle	Papaveraceae	herb	X				
*Aristolochia littoralis	English: Dutchman's pipe, calico flower; Other: mokora (Cook Islands); fue paipa holani (Tonga)	Aristolochiaceae	vine	X				
*Asparagus plumosus	English: asparagus fern	Liliaceae	vine	X				
Asystasia gangetica	English: Chinese violet, Philippine violet, coromandel	Acanthaceae	herb	X	X	X	X	X

Table 3. Other species that are known to be invasive or weedy and are present on Niue

Scientific Name	Common Names (abridged)	Family	Habit	Sykes (1970)	Whistler (1988)	Whistler (1997)	Space & Flynn (2000)	This survey (2004)
Axonopus compressus	English: blanket grass, carpetgrass	Poaceae	grass	X	X	X		X
Axonopus fissifolius	English: caratao grass, narrow-leaved carpetgrass	Poaceae	grass		X			X
Bambusa spp.	Niuean: kaho palangi, kaho papalangi; English: bamboo; Other: ko'e papa'a (Cook Islands); 'ohe (French Polynesia, Hawai'i); 'ofe (French Polynesia, Samoa); 'ofe Fiti, 'ofe palagi (Samoa); kofe (Tonga, Tuvalu); pitu (Tonga); pampu (Tuvalu)	Poaceae	tree	X				X
Bauhinia monandra	Niuean: pine fua loloa; English: orchid-tree, St. Thomas-tree, Napoleon's plume; Other: vae povi (American Samoa and Samoa); pine (Cook Islands (Rarotonga), French Polynesia); pipipipi (Cook Islands (Aitu)); pi pi (Cook Islands (Ma'uke and Miti'aro))	Fabaceae	tree	X			X	Bauhinia sp.
Begonia x semperflorens-cultorum	English: bedding begonia, perpetual begonia, wax begonia	Begoniaceae	herb					X
Bidens pilosa	Niuean: kofetonga, kofetoga; English: beggar's tick, Spanish needle, cobbler's pegs; Other: pipipiri kerekere (Cook Islands); pipipiri (Cook Islands, French Polynesia (Tahiti)); niroa (Cook Islands (Aitutaki)); kamika tuarongo (Cook Islands (Mangaia)); tae puaka (Futuna); ki, ki nehe, ki pipili, nehe (Hawai'i); fisi'uli (Tonga)	Asteraceae	herb	X	X	X	X	X
*Bixa orellana	English: anatto, annato, annatto, arnatto, lipstick tree; French: atole, roucou, roucouyer; Other: 'uaeva, tamuramura (Cook Islands (Ma'uke)), 'uaefa (French Polynesia (Tahiti))	Bixaceae	shrub	X				X
Blechnum pyramidatum	English: green shrimp plant, blackweed (Samoa), Browne's blechnum; Other: vao uli (Samoa)	Acanthaceae	herb					X
Borreria verticillata		Rubiaceae	herb	X				
Bothriochloa bladhii	English: blue grass, Australian beardgrass, Caucasian bluestem	Poaceae	grass		X	X	X	X
Brassica juncea	English: Chinese mustard, India mustard, Indian mustard, Oriental mustard	Brassicaceae	herb	X				
Breynia disticha	English: snowbush, snowbush breynia, foliage-flower; Other: maemae (Cook Islands (Miti'aro))	Euphorbiaceae	shrub	X				X
Cajanus cajan	English: pigeon pea, red gram, cajan	Fabaceae	shrub					X
*Caladium bicolor	English: caladium, elephant's-ear, fancy-leaf caladium, heart-of-Jesus; Other: kalo-kalakoa (Hawai'i)	Araceae	herb	X				X
*Calliandra sp.	English: powderpuff, calliandra; Other: kaliana (Samoa)	Fabaceae	shrub					X
Calopogonium mucunoides	English: calopo	Fabaceae	vine	X			X	X
*Calotropis gigantea	English: calotrope, crown flower, madar; Other: pua-kalaunu (Hawai'i); tahinu (French Polynesia)	Asclepiadaceae	shrub	X			X	X
*Cananga odorata	Niuean: motoi; English: perfume tree; Other: moso'oi (American Samoa and Samoa); moto'oi, mata'oi, moto'oi (Cook Islands, Tahiti); moto'i (French Polynesia); lanalana (Hawai'i); mohoki, mohokoi (Tonga)	Annonaceae	tree	X			X	X
Canna indica	English: canna, canna lily, Indian shot; Other: fanamanu, fagamanu, fa'i masoa (American Samoa and Samoa); nuaenga (Cook Islands); tiare papa'a (Cook Islands (Mangaia)); pia renga (Cook Islands (Aitutaki)); pia-raroto'a (French Polynesia); fagafaga (Futuna); ali'ipoe, li'ipoe, poloka (Hawai'i); te misimisi (Tonga)	Cannaceae	herb	X	X		X	X

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Scientific Name	Common Names (abridged)	Family	Habit	Sykes (1970)	Whistler (1988)	Whistler (1997)	Space & Flynn (2000)	This survey (2004)
*Carludovica palmata	English: Panama hat plant; Other: Panama (Cook Islands)	Cyclanthaceae	shrub	X				
Casuarina equisetifolia	Niuean: toa; English: casuarina, ironwood, Australian pine, she-oak, horsetail tree, beefwood; Other: toa (American Samoa, Cook Islands, French Polynesia, Hawai'i, Samoa and Tonga); 'aito (French Polynesia (Society Islands))	Casuarinaceae	tree	X			X	X
Catharanthus roseus	English: Cape periwinkle, Madagascar periwinkle, old-maid, rosy periwinkle; Other: tiare tapau (Cook Islands), kihapai (Hawai'i))	Apocynaceae	herb	X		X		X
*Ceiba pentandra	Niuean: vavae; English: kapok, kapok tree, silk-cotton tree, paca; Other: vavae (American Samoa, Samoa, Tonga); vavai (Cook Islands and French Polynesia); vavai mama'u, vavai maori (Cook Islands); mama'u (Cook Islands (Mangaia, Aitutaki?))	Bombacaceae	tree	X			X	X
*Celosia argentea	English: cockscomb	Amaranthaceae	herb	X				X
Cenchrus ciliaris	English: buffelgrass, African foxtail grass, anjan grass	Poaceae	grass	X	X			
Cenchrus echinatus	Niuean: mosie vihilago, mosie vihilango; English: burgrass, sand-bur, southern sandbur, Mossman River grass (Australia); Other: tuitui, vao tuitui (American Samoa and Samoa); pipiri (Cook Islands); piri-piri, pipiri (French Polynesia); mau'u kuku, 'ume'alu (Hawai'i); hefa (Tonga)	Poaceae	grass	X	X	X	X	X
Centella asiatica	Niuean: tono, tonu; English: Asiatic pennywort, Indian pennywort, marsh pennywort, pennyweed, sheep-rot, thankuni; Other: kapukapu (Cook Islands); pohe kula (Hawai'i); tono (Tonga); togo (Samoa)	Apiaceae	herb	X	X	X		X
Centrosema molle	English: centro, butterfly-pea	Fabaceae	vine	X	X		X	X
*Cestrum nocturnum	Niuean: ike he po; English: night-flowering cestrum, night-flowering jasmine, queen (or lady) of the night; Other: teine o le po, ali'i o le po (American Samoa and Samoa); tiare ariki-va'ine, ariki-va'ine (Cook Islands); 'ala aumoe, kupaoa, onaona lapana (Hawai'i); lakau po'uli (Tonga)	Solanaceae	shrub	X	X		X	X
Chamaesyce hirta	Niuean: toto tane; English: asthma plant, garden spurge, pill-bearing spurge, hairy spurge; Other: totototo tita (Cook Islands (Ma'uke)); eaea, raau topau (French Polynesia); koko kahiki (Hawai'i); la'au fai moti (Samoa); sakisi (Tonga)	Euphorbiaceae	herb	X	X	X		X
Chamaesyce hypericifolia	English: beach spurge, graceful spurge; Other: ufi tamaiti? (Samoa)	Euphorbiaceae	herb	X	X	X		X
Chamaesyce prostrata	Niuean: toto fifine; English: creeping splurge, prostrate spurge, red caustic creeper; Other: laulili'i (Samoa); papati (French Polynesia (Society Islands))	Euphorbiaceae	herb	X	X	X		X
Chloris barbata	English: swollen fingergrass, purpletop chloris (Australia), airport grass (Fiji); Other: mau'u lei (Hawai'i)	Poaceae	grass		X			X
Chloris gayana	English: Rhodes grass	Poaceae	grass	X	X			
Ciclospermum leptophyllum	Niuean: taletale, sekule?; English: fir-leaved celery, marsh parsley, slender celery	Apiaceae	herb	X				
Cleome viscosa	English: tickweed, spider flower	Capparaceae	herb	X	X			
Clerodendrum buchananii var. fallax	Niuean: lauma pelu, talufe?; English: red clerodendrum, pagoda-flower; Other: rakau tupopoku (Cook Islands ('Atiu)); lau'awa (Hawai'i); amo'ula, amo'ule (Tonga)	Lamiaceae	shrub	X	X	X	X	

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*Coffea arabica	Niuean: kofe; English: coffee; Other: kaope, kaope Maori (Cook Islands); kofe (Samoa), kafe (French Polynesia (Marquesas)); kofi (Tonga); taofe (Tahiti)	Rubiaceae	tree	X			X	X
Conyza bonariensis	English: flax-leaf fleabane, hairy fleabane, hairy horseweed, wavy-leaf fleabane; Other: lani wela (Hawai'i)	Asteraceae	herb			X		X
Conyza canadensis	English: butterweed, Canadian horseweed, Canadian fleabane, hogweed, horseweed	Asteraceae	herb	X	X			X
Coronopus didymus	English: bittercress, swinecress, wart cress; Other: lesivao (Tonga)	Brassicaceae	herb	X	X			
*Costus speciosus	English: crepe ginger, crape ginger, wild ginger, Malay ginger, canereed	Zingiberaceae	herb				X	X
Crassocephalum crepidioides	English: thickhead, fireweed, redflower ragleaf; Other: fua lele, pualele (American Samoa and Samoa); fisi puna (Tonga)	Asteraceae	herb	X	X	X		X
Crotalaria micans	Niuean: pine kotalelia; pile; English: crotalaria	Fabaceae	shrub	X		X	X	X
Crotalaria pallida	Niuean: pine kotalelia; English: salts rattlebox, smooth crotalaria, smooth rattlebox, smooth rattlepod, streaked rattlepod, striped crotalaria; Other: maniva (Cook Islands ('Atiu)); pikakani, kolomona (Hawai'i); pi'isi (Tonga)	Fabaceae	shrub	X	X	X		X
Crotalaria verrucosa	English: blue-flower rattlepod, tooth-leaf rattlepod	Fabaceae	herb	X	X			X
Cuscuta campestris	English: golden dodder, field dodder, five-angled dodder; Other: tiaea (Cook Islands (Mangaia))	Cuscutaceae	vine	X	X		X	X
Cynodon dactylon	Niuean: mosie molulu; English: Bermuda grass, giant Bermuda grass, bahama grass, devil's grass, couch grass, Indian doab, grama, devilgrass, couchgrass, balama grass; Other: matie (Cook Islands); manini, manienie (Hawai'i)	Poaceae	grass	X	X	X		X
Cyperus compressus	English: flat sedge; Other: pakopako (Tonga)	Cyperaceae	sedge	X				X
Cyperus cyperoides	Niuean: pako; Other: tuise (Samoa); pako pako (Tonga)	Cyperaceae	sedge	X	X			
Cyperus gracilis	English: McCoy grass, slender sedge, whisker grass, whisker sedge; Other: mau'u hunehune (Hawai'i)	Cyperaceae	sedge		X			
Cyperus involucratus	English: umbrella sedge, umbrella plant, dwarf papyrus grass; Other: 'ahu'awa haole, pu'uka'a haole (Hawai'i)	Cyperaceae	sedge	X	X		X	X
Cyperus rotundus	English: nut grass, nutsedge, purple nutsedge, cocogress; Other: mauku 'oniani, 'oniani (Cook Islands); kili'o'opu, mau'u mokae (Hawai'i); mumuta (Samoa, Tokelau); pakopako (Tonga)	Cyperaceae	sedge	X	X	X		X
Dactyloctenium aegyptium	English: beach wiregrass, button grass, coast button grass, comb fringe grass, crowfoot grass, duck grass, finger comb grass	Poaceae	grass		X			
Datura metel	English: datura, downy thorn-apple, Hindu datura, Hindu thorn-apple, hoary thorn-apple, horn-of-plenty, jimson-weed, purple thorn-apple; Other: puave (Cook Islands (Ma'uke, Ngaputoru?))	Solanaceae	herb	X				
Derris malaccensis	Niuean: akau niukini, niukini; English: New Guinea creeper; Other: 'ava niukini (American Samoa and Samoa); 'ora papua, rakau papua (Cook Islands); hora papua (French Polynesia); kava fisi (Tonga)	Fabaceae	vine	X		X	X	
Desmodium incanum	English: kaimi clover, Spanish clover; Other: ngatoro (Cook Islands (Ma'uke)); ka'imi (Hawai'i)	Fabaceae	shrub	X	X	X		X

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Desmodium triflorum	English: creeping tick trefoil, three-flower beggarweed, tropical trefoil; Other: kihikihi (Tonga)	Fabaceae	herb	X	X	X		X
Desmodium uncinatum	English: silverleaf desmodium, Spanish clover, Spanish tick-clover	Fabaceae	herb	X	X			
Dichanthium annulatum	English: Angleton grass, bluestem, Diaz bluestem, Hindi grass, Kleberg bluestem, marvel grass, sheda grass, vunda blue grass (Fiji)	Poaceae	grass	X	X			
*Dieffenbachia seguine	English: dieffenbachia, dumb cane	Araceae	herb					X
Digitaria ciliaris	Niuean: saulangi; English: Henry's crabgrass, smooth crabgrass, tropical crab grass, large crab grass, southern crabgrass, fingergrass, summer grass; Other: kukaepua'a (Hawai'i)	Poaceae	grass	X	X			X
Digitaria violascens	English: smooth crabgrass, violet crabgrass	Poaceae	grass	X	X			
Echinochloa colona	English: awnless barnyard grass (Australia), corn panic grass, Deccan grass, jungle ricegrass, millet-rice, pigeon millet (Samoa), shama millet; Other: sefa (Samoa); muhuku'apopoa, mata'alu'e (Tonga)	Poaceae	grass		X			
Echinochloa crus-galli	English: barnyard grass, cockspur grass	Poaceae	grass	X				
Eclipta prostrata	English: eclipta, false daisy, swamp daisy, white eclipta; Other: miri mapua (Cook Islands (Ma'uke))	Asteraceae	herb	X	X			
*Elaeis guineensis	English: African oil palm; Other: nu tamara (Cook Islands (Mangaia))	Arecaceae	tree	X			X	
Eleutheranthera ruderalis	Other: pakaka (Tonga)	Asteraceae	herb		X			X
Emilia sonchifolia	Niuean: pualele, pupu lele; English: Cupid's shaving-brush, emilia, Flora's paint brush, purple sow thistle, sow thistle; Other: pualele (Samoa); fua lele, fua lele lili'i (Samoa); longlongo'uha (Tonga)	Asteraceae	herb	X	X			X
Eragrostis amabilis	English: Bug's egg grass, Japanese love grass, love grass	Poaceae	grass	X	X	X		X
*Eugenia uniflora	Niuean: kafika, kafika palangi, kafika papalangi; English: Surinam cherry, red Brazil cherry; Other: venevene (Cook Islands); menemene (Cook Islands (Mangaia))	Myrtaceae	shrub/tree	X			X	X
Euphorbia cyathophora	Niuean: toto uli?; English: dwarf poinsettia, fire-on-the-mountain, Mexican fire plant, painted spurge, wild poinsettia	Euphorbiaceae	herb	X	X	X		X
Euphorbia heterophylla	English: Mexican fireplant, milkweed, painted euphorbia, paintedleaf, wild spurge; Other: kaliko (Hawai'i)	Euphorbiaceae	herb		X	X		X
*Ficus elastica	English: India rubber tree, rubber plant; Other: rapa (Cook Islands)	Moraceae	tree				X	X
*Flacourtia jangomas	Niuean: palamu; English: Indian-plum, runeala-plum; Other: venevene pama (Cook Islands)	Flacourtiaceae	tree	X				
Foeniculum vulgare	Niuean: taletale; English: fennel; Other: taretare tui-'ei (Cook Islands ('Atiu))	Apiaceae	herb	X				
Furcraea foetida	Niuean: toua; English: Mauritius hemp, maguey; Other: piani, ropiani (Cook Islands); malina (Hawai'i (Ni'ihau)); faumalila, fau malila (Tonga)	Agavaceae	succulent	X		X	X	X
*Gliricidia sepium	English: mother of cacao, quickstick, Mexican lilac	Fabaceae	tree				X	X
*Gloriosa superba	English: climbing-lily, creeping-lily, flame-lily, glory-lily, gloriosa lily; Other: riri vavai-moa (Cook Islands ('Atiu))	Liliaceae	herb	X				X
Glycine tabacina		Fabaceae	herb	X				

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*Gomphrena globosa	Niuean: malila; English: bachelor's-button, bozo, globe amaranth, pearly everlasting; Other: pokai kura (Cook Islands); poe ura (French Polynesia); lehua mau loa, lehua, lehua pepa, leihua (Hawai'i); (Samoa)	Amaranthaceae	herb	X				X
*Gossypium barbadense	Niuean: vavae; English: cotton, sea island cotton; Other: vavai (Cook Islands); ki'ailana, pulupulu, pulupulu haole, (Hawai'i)	Malvaceae	shrub	X				X
*Grevillea robusta	English: silky oak, he oak, silver oak, spider flower; Other: 'oka kilika, ha'iku ke'oke'o (Hawai'i), oke' (Tonga)	Proteaceae	tree	X			X	
Hedychium flavescens	Niuean: keuila; English: yellow ginger, cream ginger; Other: teuila (American Samoa and Samoa); kopi rengarenga, re'a rengarenga (Cook Islands); opuhi rea rea (French Polynesia); 'awapuhi melemele (Hawai'i)	Zingiberaceae	herb	X			X	
*Heliconia spp.	English: heliconia, parrot's-flower, parrot's-plantain, crab claw, lobster claw; Other: tiare parata'ito (Cook Islands), vae paa (Samoa)	Heliconiaceae	herb	X				X
Hibiscus diversifolius	Niuean: fou hele, fou igo; English: swamp hibiscus	Malvaceae	herb	X	X	X	X	X
*Impatiens balsamina	English: impatiens, balsam, garden balsam, rose balsam, spotted snapweed, touch-me-not; Other: polosomo (Tonga)	Balsaminaceae	herb	X				X
*Indigofera hirsuta	English: hairy indigo, rough hairy indigo	Fabaceae	shrub	X				
Indigofera spicata	English: creeping indigo	Fabaceae	herb	X				
Indigofera suffruticosa	English: indigo; Other: 'initiko (Cook Islands); 'iniko, inikoa, kolu (Hawai'i); la'au mageso (Samoa); 'akau veli (Tonga)	Fabaceae	shrub		X			X
Ipomoea cairica	Niuean: sefifi sea; English: Cairo morning glory, coastal morning glory, ivy-leaved morning glory, railroad-creeper; Other: koali 'ai, koali, koali 'ai'ai (Ni'ihau), koali lau manamana, kowali, pa'ali (Hawai'i)	Convolvulaceae	vine	X	X			
*Ipomoea carnea subsp. fistulosa	English: bush morning glory, tree ipomoea	Convolvulaceae	shrub					X
*Ipomoea quamoclit	English: Cupid's flower, cypress vine, cypressvine morning-glory, star of Bethlehem, star-glory, sweet-willy	Convolvulaceae	vine	X				
Ipomoea triloba	English: Aiea morning-glory, little bel	Convolvulaceae	vine					X
*Ischaemum indicum	English: batiki blue grass (Fiji)	Poaceae	grass	X	X			
*Jacaranda mimosifolia	English: jacaranda	Bignoniaceae	tree					X
*Jasminum sambac	English: Arabian jasmine; Other: pitate papa'a (Cook Islands ('Atiu))	Oleaceae	vine	X				X
*Jatropha curcas	English: physic nut, purging nut, Barbados nut; Other: tuitui pakarangi, pakarani (Cook Islands); fiki (Cook Islands, Fiji, Tonga); kuku'ihi (Hawai'i), kuikui Pake (Hawai'i (Ni'ihau), laupata (Samoa)	Euphorbiaceae	shrub					X
Kyllinga brevifolia	English: green kyllinga, green water sedge; Other: tuise (American Samoa and Samoa); tumu 'enua (Cook Islands (Ma'uke)); kili'o'opu, kaluha, manunene, mau'u mokae (Hawai'i); pakopako (Tonga)	Cyperaceae	sedge	X	X			
Lablab purpureus	English: hyacinth bean, lablab, bonavist, Egyptian kidney bean, dolichos; Other: papapa, pi (Hawai'i); pini lae puaka (Tonga)	Fabaceae	vine	X	X			
Leontodon taraxacoides	English: rough hawkbit	Asteraceae	herb	X	X			X

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Leonurus japonicus	English: lion's tail, Chinese motherwort; Other: vavai tara (Cook Islands (Miti'aro))	Lamiaceae	herb	X				
Lepidium virginicum	English: peppergrass, Virginia peppergrass, Virginia pepperweed, wild peppergrass; Other: naunau (Cook Islands (Aitutaki))	Brassicaceae	herb	X	X	X		X
Lycopersicon esculentum	English: tomato, wild tomato; Other: tomati (Cook Islands, French Polynesia (Tahiti))	Solanaceae	herb	X				X
Macroptilium atropurpureum	English: siratro, purple bushbean	Fabaceae	vine	X	X	X		X
Macroptilium lathyroides	English: cow pea, phasey bean, wild bean; Other: pini (Tonga)	Fabaceae	herb	X	X			
Malvastrum coromandelianum	English: false mallow, prickly malvastrum; Other: purumu (Cook Islands); te'ehosi, te'ehooi (Tonga)	Malvaceae	herb	X	X	X		X
Mirabilis jalapa	English: beauty of the night, false jalap, four o'clock, marvel of Peru; Other: nani ahiahi, pua ahiahi, puahiahi (Hawai'i)	Nyctaginaceae	herb	X				
Momordica charantia	English: balsam-apple, bitter-melon, bitter gourd, balsam pear, squirting cucumber, cerasee, peria; Other: pokutekute rengarenga (Cook Islands ('Atiu)); meleni 'ae kuma, vaine 'initia (Tonga)	Cucurbitaceae	vine	X	X			
*Moringa oleifera	English: horseradish tree, drumstick tree, ben nut, morango	Moringaceae	tree	X			X	X
*Murraya paniculata	English: orange jessamine, satin-wood, Chinese box, Hawaiian mock orange; Other: tiare 'anani (Cook Islands, French Polynesia)	Rutaceae	shrub/tree					X
Neonotonia wightii	English: glycine	Fabaceae	vine	X			X	X
Nicandra physalodes	English: apple of Peru, shooflyplant	Solanaceae	herb		X			
*Ocimum basilicum	Niuean: momili, momili elo; English: basil, common basil, sweet basil; Other: ki 'a'ala, ki paoa (Hawai'i)	Lamiaceae	herb	X				X
*Odontonema tubaeforme	English: fire spike, cardinal flower; Other: totoe (American Samoa and Samoa)	Acanthaceae	shrub	X				X
Oldenlandia corymbosa	English: Old World diamondflower	Rubiaceae	herb					X
Oplismenus hirtellus	English: basket grass, woods grass; Other: honohono kukui, honohono, honohono maoli (Hawai'i)	Poaceae	grass	X	X	X		
*Orthosiphon aristatus	English: cat's whiskers; Other: 'ava pusi (Samoa), kava 'i pusi (Tonga)	Lamiaceae	herb	X	X			
Paspalum conjugatum	Niuean: moise vailima, moise vaolima, vailima, vaolima; English: T grass, ti grass, sour grass; sour palpalum, buffalo grass, carabao grass, Hilo grass (Hawai'i); Other: vaolima, (American Samoa, Samoa, Tonga); mauku taravao, mauku katini (Cook Islands); mau'u Hilo (Hawai'i), moise vaolima, mosie vailima, vailima (Tonga); vaolima matafao, vaolima papalagi (Samoa)	Poaceae	grass	X	X	X	X	X
Paspalum dilatatum	Niuean: hiku nua; English: paspalum, dallis grass, water grass	Poaceae	grass	X	X			X
Paspalum paniculatum	English: Russell river grass, galmarra grass; Other: matie manutai (Cook Islands); taravao 'uru'uru (Cook Islands (Mangaia))	Poaceae	grass					X
Paspalum scrobiculatum	English: rice grass; creeping paspalum, ditch millet, Indian paspalum, kodo millet, water couch; Other: maataa (Cook Islands); mau'u laiki (Hawai'i);	Poaceae	grass	X	X	X		

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Passiflora edulis	English: passion fruit, yellow passion fruit, purple passion fruit, qarandila, purple granadilla; Other: parapoutini papa'a (Cook Islands); ka'atene papa'a, katinga papa'a (Cook Islands (Mangaia)); liliko'i (Hawai'i); pasio (Samoa); vaine (Tonga)	Passifloraceae	vine	X			X	X
*Passiflora laurifolia	English: yellow granadilla, belle apple, yellow water-lemon; Other: pasio vao (Samoa); vaine 'ae kuma (Tonga)	Passifloraceae	vine	X	X		X	
Passiflora maliformis	English: hard-shelled passionfruit, sweet calabash, sweet cup; Other: parapoutini 'enua, parapoutini Maori (Cook Islands); ka'atene Maori, katinga Maori (Cook Islands (Mangaia)); pasio (Samoa), vaine kai (Tonga)	Passifloraceae	vine	X	X		X	
*Passiflora quadrangularis	Niuean: palasini, vine palasini; English: granadilla, giant granadilla; Other: papatini, parapotini, (Cook Islands); kuukuma (Cook Islands ('Atiu)); maratini (Cook Islands (Ma'uke, Miti'aro)); para pautini (French Polynesia); pasio (Samoa); pasione (Tonga)	Passifloraceae	vine	X			X	X
Peperomia pellucida		Piperaceae	herb					X
*Persea americana	Niuean: avoka; English: avocado, alligator pear; Other: 'apuka, 'apoka (Cook Islands); avoka (Samoa, Tahiti, Tonga); 'avota (Cook Islands (Ngaputoru))	Lauraceae	tree	X				X
Phyllanthus amarus	Other: moemoe (Cook Islands); moemoe uouo (French Polynesia)	Euphorbiaceae	herb	X	X	X		X
Phyllanthus virgatus	English: seed-under-leaf (Samoa); Other: moemoe 'enua? (Cook Islands); 'avasa (Samoa)	Euphorbiaceae	herb	X	X			
Physalis minima	Niuean: manini; English: sunberry	Solanaceae	herb	X				X
Physalis peruviana	Niuean: manini; English: Cape gooseberry, goldenberry, gooseberry-tomato, Peruvian ground-cherry; Other: tupera (Cook Islands); tupere (French Polynesia), poha, pa'ina (Hawai'i); ku'usi (Tonga)	Solanaceae	shrub	X	X			X
Pilea microphylla	Niuean: pikimaka?; English: artillery plant, gunpowder plant, pistol plant, rockweed, Samoan fern (Samoa); Other: kiona topa (Cook Islands (Ma'uke)), tamole (Samoa)	Urticaceae	herb	X	X	X		X
*Pinus caribaea	English: Caribbean pine, Bahamas pine; Other: paina papa'a (Cook Islands (Mangaia)); paina (Samoa); paini (Tonga)	Pinaceae	tree	X			X	X
Plantago lanceolata	English: buckhorn, buckhorn plantain, English plantain, narrow-leaved plantain, plantain (Vanuatu), ribgrass, ribwort plantain; Other: filo, filohako (Tonga)	Plantaginaceae	herb	X	X	X		X
Plantago major	English: broadleaf plantain, common plantain, greater plantain; Other: laukahi, kuhekili (Hawai'i); filo, filomatolu (Tonga)	Plantaginaceae	herb	X	X	X		X
*Plectranthus amboinicus	Niuean: pasiole; English: Mexican mint, Spanish thyme, Cuban oregano; Other: pasiole (Tonga); la'au tai'e, militini (Samoa); kaloni (Tonga)	Lamiaceae	herb	X				
Polygala paniculata	English: island snake-root; Other: namupululola, pulunamulole (Samoa)	Polygalaceae	herb	X	X	X		X

Table 3. Other species that are known to be invasive or weedy and are present on Niue

Scientific Name	Common Names (abridged)	Family	Habit	Sykes (1970)	Whistler (1988)	Whistler (1997)	Space & Flynn (2000)	This survey (2004)
Portulaca oleracea	Niuean: kamole; English: pigweed, purslane; Other: pokea papa'a (Cook Islands, French Polynesia (Tuamotus)); katuri (Cook Islands (Penrhyn)); ongoongo (Cook Islands (Pukapuka)); aturi (French Polynesia (Tahiti)); 'akulikuli kula, 'akulikuli lau li'i, 'ihi (Hawai'i); pokea (French Polynesia (Marquesas, Tuamotu)); tamole (Samoa, Tonga)	Portulacaceae	herb	X	X	X		X
Pseudelephantopus spicatus	English: false elephant foot, tobacco weed (Vanuatu), Yasawa tobacco weed (Fiji); Other: vao elefane, vao maligi, vao malini (Samoa)	Asteraceae	herb	X	X			X
*Pseuderanthemum carruthersii	English: false eranthemum; Other: tiare 'apa-mata'iti (Cook Islands)	Acanthaceae	shrub	X				X
Pueraria phaseoloides	English: tropical kudzu, puero; Other: kuku (Cook Islands ('Aitu))	Fabaceae	vine	X			X	X
*Quisqualis indica	English: Rangoon creeper	Combretaceae	vine	X				X
Rhynchosia minima	Niuean: pine Liku; English: rhynchosia	Fabaceae	herb	X	X	X		X
Ruellia prostrata	English: black weed, bell weed; Other: vao uli (American Samoa and Samoa); tita 'aruru (Cook Islands (Miti'aro))	Acanthaceae	herb		X	X		X
Russelia equisetiformis	Niuean: tamafine; English: coralplant, fountainplant; Other: menemene (Cook Islands (Ma'uke))	Scrophulariaceae	shrub	X				X
*Salix babylonica	English: weeping willow	Salicaceae	tree	X				
*Samanea saman	English: monkeypod, rain tree, saman; Other: 'ohai, pu 'ohai (Hawai'i); malapa (Samoa); kasia (Tonga)	Fabaceae	tree	X			X	X
*Sambucus mexicana	English: elderberry, Mexican elder	Caprifoliaceae	small tree				X	X
*Sanchezia parvibracteata	English: sanchezia	Acanthaceae	shrub					X
Sansevieria trifasciata	English: bowstring hemp, mother-in-law's tongue; Other: riri (Cook Islands)	Agavaceae	herb	X			X	X
*Senna alata	Niuean: mulamula; English: candle bush; candelabra bush, ringworm bush (Australia), alcapulco; Other: fa'i lafa, la'au fai lafa (American Samoa, Samoa and Tonga); te'elango (Tonga)	Fabaceae	shrub	X			X	X
Senna occidentalis	English: antbush, coffee senna; Other: 'auko'i, 'au'auko'i, mikipalaoa, pi hohono (Hawai'i); te'epulu (Tonga)	Fabaceae	shrub	X	X	X	X	X
Sida acuta	Niuean: mautofu, motofu, English: broom weed, Paddy's lucerne, southern sida, spiny-head sida, spiny sida; Other: purumu (Cook Islands); mautofu (Samoa); motofu, te'ehoosi (Tonga)	Malvaceae	herb	X	X			X
Solenostemon scutellarioides	Niuean: selevese; English: coleus; Other: terevete (Cook Islands); weleweka (Hawai'i); pate, patiale, la'au fai sei (Samoa)	Lamiaceae	herb	X				X
Sonchus oleraceus	Niuean: puha, pupe lele; English: annual sow thistle, common sow thistle, hare's-lettuce, milk thistle, sow thistle; Other: pu'a (Cook Islands); pualele (Hawai'i), longolongo'uha (Tonga)	Asteraceae	herb	X	X	X		X
Sorghum bicolor	English: Sudan grass; Other: tarapi (Cook Islands), kola (Tonga)	Poaceae	grass	X				
Spermacoce assurgens	English: buttonweed	Rubiaceae	herb	X	X	X		X
Sporobolus indicus	English: smutgrass, wiregrass, Indian dropseed; Other: fihina (Tonga)	Poaceae	grass		X	X		X
Stylosanthes guianensis	English: stylo, Brazilian lucerne, tropical lucerne, Nigerian stylo; Other: mauku puakatoro (Cook Islands ('Atiu))	Fabaceae	herb	X			X	

Table 3. Other species that are known to be invasive or weedy and are present on Niue

Scientific Name	Common Names (abridged)	Family	Habit	Sykes (1970)	Whistler (1988)	Whistler (1997)	Space & Flynn (2000)	This survey (2004)
Synedrella nodiflora	English: Cinderella weed (Australia), porter bush, pig grass (Solomon Islands, Vanuatu), synedrella; Other: ngaroiarui (Cook Islands ('Atiu)); lau'oti'oti, tae'oti (Samoa); pakaka, pakopako (Tonga)	Asteraceae	herb	X	X	X		X
*Syzygium cumini	English: Java plum; jambolan plum; Other: pistati, ka'ika (Cook Islands); paramu (Cook Islands (Aitutaki))	Myrtaceae	tree	X				X
*Syzygium jambos	English: malabar plum, rose apple, Malay apple; Other: ka'ika papa'a (Cook Islands except Ma'uke), ka'ika takataka (Cook Islands); ka'ika varani (Cook Islands (Mangaia)); ka'ika (Cook Islands ('Atiu)); ahi'a papa'a, ahi'a popa'a (French Polynesia), 'ohi'a loke (Hawaii); seasea papalagi (Samoa); fekika papalangi (Tonga)	Myrtaceae	tree	X			X	
Taraxacum officinale	English: common dandelion, dandelion, lion's-tooth; Other: laulele, lauhele (Hawaii)	Asteraceae	herb	X	X			X
*Tecoma stans	English: yellow bells, yellow-elder, yellow trumpetbush; Other: tekoma (Cook Islands); piti (French Polynesia, Tonga)	Bignoniaceae	small tree	X			X	X
*Tephrosia candida	English: white tephrosia, white hoary-pea	Fabaceae	shrub	X				
Thunbergia fragrans	English: white lady, white thunbergia, sweet clock-vine; Other: fue hina (Tonga)	Acanthaceae	vine	X	X			X
*Tillandsia usneoides	English: Spanish moss, old man's beard, grandfather's whiskers, air plant	Bromeliaceae	bromeliad				X	X
*Toona ciliata [=australis]	English: Australian red cedar, toon, surian, Indian mahogany; Other: wood pikake (Hawaii); tuna (Samoa); sita kula (Tonga)	Meliaceae	tree					X
Tripsacum laxum	English: Guatemala grass	Poaceae	grass	X				X
Triumfetta rhomboidea	Niuean: mosipo; English: Chinese burr, paroquet burr, burr bush; Other: mautofu, mautofu vao (American Samoa and Samoa); vavai tara tita (Cook Islands); pipipiri (Cook Islands (Aitutaki)); urio (French Polynesia); mo'osipo (Tonga)	Tiliaceae	shrub	X	X	X	X	X
Urena lobata	Niuean: mosipo?; English: hibiscus burr, aramina, caesarweed, pink Chinese burr, urena burr, bur mallow; Other: mautofu (American Samoa and Samoa); vavai tara tita (Cook Islands (Ma'uke)); pipipiri (Cook Islands, French Polynesia); mo'osipo Tonga (Tonga)	Malvaceae	shrub	X	X			
Urochloa [=Brachiaria] glumaris		Poaceae	grass	X	X	X		
Urochloa [=Brachiaria] mutica	English: California grass, para grass, buffalo grass, signal grass; Other: mauku puakatoro (Cook Islands); puakatau (Tonga)	Poaceae	grass	X	X			X
Urochloa [=Brachiaria] subquadripara	English: brachiaria, green summer grass, tropical signalgrass, cori grass	Poaceae	grass	X	X	X		
Verbena bonariensis	Niuean: momili vao; English: purpletop, South American vervain, tall verbena	Verbenaceae	herb	X				
Vernonia cinerea	English: ironweed, little ironweed, vernonia; Other: fisi puna (Tonga)	Asteraceae	herb	X	X	X		X
Waltheria indica	Other: 'uhaloa, 'ala'ala pu loa, hal 'uhaloa, hi'aloa, kanakalao (Hawaii)	Sterculiaceae	shrub	X	X		X	X
Youngia japonica	English: oriental hawksbeard	Asteraceae	herb		X			

*Cultivated

Table 4. Native species and Polynesian introductions that exhibit aggressive behaviour

Scientific Name	Common Names (abridged)	Family	Habit	Sykes (1970)	Whistler (1988)	Whistler (1997)	Space & Flynn (2000)	This survey (2004)
Abelmoschus moschatus	Niuean: fou ingo; English: fautia, musk mallow, musk okra; Other: 'aute toga, fau tagaloo, fua samasama (American Samoa and Samoa); vavai tara (Cook Islands); ta'uri'au (Cook Islands (Mangaia)); loa, fau'ingo (Tonga); fau ingo (Wallis and Futuna)	Malvaceae	herb	X	X		X	
Acalypha lanceolata	Niuean: ongoongo?, mangiho?; Other: puapua (Cook Islands (Miti'aro)); ogo ogo (Samoa); hongohongo (Tonga)	Euphorbiaceae	herb	X	X			
Achyranthes aspera	Niuean: lamoaa fisi, talamoaa fisi; English: chaff-flower, devil's horsewhip; Other: pipiri (Cook Islands); kopu varu (Cook Islands ('Atiu, Ma'uke)); tumu 'enua (Cook Islands (Mangaia)); aerofai (French Polynesia (Tahiti)); lautafifi (Samoa); tamatama (Samoa, Tonga)	Amaranthaceae	herb	X	X	X		X
Aleurites moluccana	Niuean: tuitui; English: candlenut, Indian walnut; Other: raguar (Caroline Islands); lama (American Samoa and Samoa); kukui (Hawaii); tuitui (Cook Islands, Tonga), 'ama (Marquesas); tahii tiarii, ti'a'iri, tutui, tahiri (French Polynesia)	Euphorbiaceae	tree	X		X	X	X
Cardiospermum halicacabum	English: balloon vine, heart pea, love-in-a-puff; Other: vinivinio (French Polynesia), poniu, haleakai'a, 'inalua, pohuehue uka (Hawaii)	Sapindaceae	vine	X	X			X
Chrysopogon aciculatus	Niuean: mosie fisi; English: Mackie's pest, lovegrass, seed grass, golden beardgrass; Other: matie 'enua, mauku ko'eko'e (Cook Islands); tuakura (Cook Islands (Ngaputoru)); papapa (French Polynesia); manienie 'ula, pi'ipi'i, pilipili 'ula (Hawaii); mutia tai, mutia vao (Samoa); matapekepeke, matapekepeka matapekepeka (Tonga)	Poaceae	grass	X	X	X	X	X
Coix lacryma-jobi	Niuean: tangatanga; English: adlay, Job's-tears; Other: poepoe (Cook Islands, French Polynesia (Tahiti)), pu'ohe'ohe, kukaekolea, 'ohe'ohe, pupu kolea (Hawaii); sanasana, sagasaga (Samoa); hana (Tonga)	Poaceae	grass	X	X			
Commelina diffusa	English: commelina, dayflower, wandering Jew; Other: mau'u toga, mau'u Tonga (American Samoa and Samoa); mauku-vai, mauku 'oro'enua, mauku puakatoro (Cook Islands); ma'apape (French Polynesia); honohono, honohono wai, makolokolo (Hawaii); mohuku vai, musie matala pulu (Tonga)	Commelinaceae	herb	X	X			X
Cyrtococcum oxyphyllum	English: long-leaf cyrtococcum grass	Poaceae	grass	X	X			
Desmodium heterocarpon		Fabaceae	herb	X	X			
Dioscorea bulbifera	Niuean: hoi; English: aerial yam; Other: hoi (Hawaii, Tonga); pi'oi (Hawaii (Kauai)), soi (Samoa, Wallis and Futuna)	Dioscoreaceae	vine	X	X	X		X
Eleusine indica	Niuean: mosie fahitalo, mosie fuhitalo, mosie fuhitalotalo; English: goosegrass, wiregrass; Other: fahitalo, lau ta'a ta'a, ta'a ta'a (American Samoa and Samoa); mauku maroki'aki'a (Cook Islands); tamamau (French Polynesia), takataka 'a leala, mohuku siamane (Tonga)	Poaceae	grass	X	X	X	X	X
Fleurya interrupta	Niuean: ongoongo; Other: hongohongo (Tonga); (Samoa); ogoogo (Samoa); mangleo (Wallis and Futuna)	Urticaceae	herb	X[1975]	X			
Ipomoea violacea	Niuean: fue tea; English: moon flower, Hawaiian moonflower	Convolvulaceae	vine	X		X	X	X

Table 4. Native species and Polynesian introductions that exhibit aggressive behaviour

Scientific Name	Common Names (abridged)	Family	Habit	Sykes (1970)	Whistler (1988)	Whistler (1997)	Space & Flynn (2000)	This survey (2004)
Kyllinga nemoralis	English: white kyllinga; Other: neke 'enua (Cook Islands (Ma'uke, Ngaputoru?)); kili'o'opu, mau'u mokae (Hawai'i), ta'a ta'a, ta'a ta'a vili taliga, matie upo'o, matie Tahiti, mo'u upo'onui, mo'u upo'o, tuise (Samoa); pakopako, pakopako 'ae kuma (Tahiti); tuise (Tonga)	Cyperaceae	sedge	X	X			X
Luffa aegyptiaca	English: dishrag gourd, loofah, rag gourd, smooth loofah, sponge gourd, vegetable sponge; Other: po'ue (Cook Islands); mafai (Tonga)	Cucurbitaceae	vine	X	X			X
Merremia peltata	Niuean: fue, fue kula, fue vao; English: merremia; Other: fue vae (American Samoa), fue lautetele (American Samoa and Samoa); kurima (Cook Islands ('Atiu)); pohue (French Polynesia); fue mea (Tonga)	Convolvulaceae	vine	X	X	X	X	X
Operculina ventricosa	English: paper rose, St. Thomas lidpod; Other: palulu (Samoa); fue hina (Tonga)	Convolvulaceae	vine	X	X			X
Oplismenus compositus	English: running mountaingrass	Poaceae	grass	X	X			X
Oxalis corniculata	Niuean: kihikihi; English: clover sorrel, creeping oxalis, creeping wood-sorrel, creeping yellow oxalis, sour grass, yellow wood sorrel; Other: keki'i (Cook Islands: Rarotonga, 'Atiu, Aitutaki, Ma'uke, Miti'aro), keki'i (Cook Islands: Mangaia); 'ihi 'ai, 'ihi 'awa, 'ihi maka 'ula, 'ihi makole (Hawai'i); 'i'i (American Samoa, Samoa); kihikihi (Tonga)	Oxalidaceae	herb	X	X	X		X
Physalis angulata	Niuean: manini; English: annual ground cherry, bladder cherry (Solomon Islands), wild cape gooseberry (Fiji); Other: tupera tamaru-ariki (Cook Islands (Mangaia)); tamanufairi, tamaru ha'ari (French Polynesia); vivao (Samoa); polopa (Tonga)	Solanaceae	herb	X	X	X		X
Pueraria montana var. lobata	Niuean: aka; English: kudzu, Japanese arrowroot; Other: aka (American Samoa, Tonga, Wallis and Futuna); a'a (American Samoa and Samoa); akataha, fue'aepuaka (Tonga)	Fabaceae	vine	X	X	X	X	X
Sida rhombifolia	Niuean: maufu, motofu; English: arrow-leaf sida, Cuban jute, Queensland-hemp, teaweed; Other: purumu (Cook Islands, French Polynesia (Tahiti)), maufu (Samoa); te'ehosi, te'ehoosi (Tonga)	Malvaceae	shrub	X	X	X		X
Solanum americanum	Niuean: polo fua, polo kai; English: American nightshade, black nightshade, glossy nightshade; Other: poroporo (Cook Islands); oupoo (French Polynesia (Marquesas)); popolo, 'olohua, polopolo (Hawai'i); popolohua (Hawai'i (Ni'ihau)); magalo, polo (Samoa); polo kai (Tonga)	Solanaceae	herb	X	X	X		X
*Syzygium malaccense	Niuean: fekakai; English: Malay-apple, mountain-apple, pomerac, rose-apple; Other: 'ohi'a 'ai, 'ohi'a, 'ohi'a 'ai ke'oke'o, 'ohi'a hakea, 'ohi'a kea, 'ohi'a leo, 'ohi'a 'ula (Hawai'i)	Myrtaceae	tree	X				X
Uraria lagopodioides	Niuean: uluhenga?; Other: iku'ipusi (Tonga)	Fabaceae	herb	X	X			

*Cultivated

Table 5. Species that are invasive elsewhere in similar ecosystems but are not known to be present on Niue

Scientific Name	Common Names (abridged)	Family	Habit
Abutilon indicum	English: abutilon, Indian abutilon, Indian mallow	Malvaceae	shrub
Abutilon theophrasti	English: abutilon-hemp, butterprint, buttonweed, China-jute, Indian-mallow, Tientsin-jute, velvetleaf, velvetweed	Malvaceae	herb
Acacia aulacocarpa	English: brown salwood, brush ironbark wattle, hickory wattle; Other: akasia (Cook Islands)	Fabaceae	tree
Acacia auriculiformis	English: Papuan wattle, auri, earleaf acacia, northern black wattle, ear-pod wattle; Other: akasia (Cook Islands)	Fabaceae	tree
Acacia boliviana	English: Bolivian wattle	Fabaceae	shrub
Acacia confusa	English: Formosa koa, Formosa acacia	Fabaceae	tree
Acacia crassicarpa	English: northern wattle, Papua New Guinea red wattle; Other: akasia (Cook Islands)	Fabaceae	tree
Acacia curassavica	English: redwood	Fabaceae	tree
Acacia farnesiana	English: Ellington curse, klu, sweet acacia; Other: titima (Cook Islands); kolu (Hawai'i)	Fabaceae	shrub
Acacia longifolia	English: Sydney golden wattle, golden wattle, long-leaved wattle, long-leaved acacia, sallow wattle, coast wattle, golden rods	Fabaceae	tree
Acacia mangium	English: mangium, brown salwood, black wattle, hickory wattle; Other: akasia (Cook Islands)	Fabaceae	tree
Acacia mearnsii	English: black wattle; Other: akasia (Cook Islands)	Fabaceae	tree
Acacia melanoxylon	English: Australian blackwood, blackwood acacia	Fabaceae	tree
Acacia nilotica	English: prickly acacia, black thorn, Egyptian thorn, Nile acacia, algaroba, babul, gum arabic tree	Fabaceae	tree
Acacia sinuata	English: chikakai, piquant sappan, sappan, soap pod	Fabaceae	shrub
Acalypha alopecuroides	English: foxtail copperleaf	Euphorbiaceae	herb
Acanthocereus tetragonus	English: barbed-wire cactus, sword-pear, triangle cactus	Cactaceae	succulent
Acmella uliginosa		Asteraceae	herb
Adiantum raddianum	English: delta maidenhair fern	Pteridaceae	fern
Aeschynomene americana		Fabaceae	herb
Aeschynomene indica	English: budda pea, curly-indigo, hard sola, Indian joint-vetch, kat sola, northern joint-vetch, sensitive jointed vetch, sensitive vetch	Fabaceae	herb
Agave americana	English: American aloe, century plant	Agavaceae	succulent
Agave sisalana	English: sisal, sisal hemp; Other: malina (Hawai'i)	Agavaceae	succulent
Ageratina riparia	English: spreading mistflower, creeping croftonweed, river eupatorium; Other: hamakua pamakani (Hawai'i)	Asteraceae	herb
Ailanthus altissima	English: tree of heaven, varnish tree	Simaroubaceae	tree
Ajuga reptans		Lamiaceae	herb
Albizia chinensis	English: Chinese albizia, silktree; Other: 'arapitia (Cook Islands); tamaligi uliuli, tamaligi ena'ena (Samoa)	Fabaceae	tree
Albizia lebeck	English: siris-tree, rain tree, East Indian walnut, kokko, woman's-tongue tree, soros-tree, room tree; Other: 'arapitia (Cook Islands (Miti'aro)); 'ohai (Hawai'i); tamaligi pa'epa'e (Samoa); kasia (Tonga)	Fabaceae	tree
Alstonia macrophylla	English: devil-tree	Apocynaceae	tree
Alternanthera caracasana	English: mat chaff flower	Amaranthaceae	herb
Alternanthera philoxeroides	English: alligator weed	Amaranthaceae	herb
Alternanthera pungens	English: khaki weed	Amaranthaceae	herb
Alternanthera sessilis	English: joyweed, sessile joyweed; Other: mata kura (Cook Islands ('Atiu)); fisi'i'anoa (Tonga)	Amaranthaceae	herb
Amaranthus cruentus	English: bush greens, purple amaranth, red amaranth, red shank	Amaranthaceae	herb
Amaranthus dubius	English: amaranth, spleen amaranth	Amaranthaceae	herb

Table 5. Species that are invasive elsewhere in similar ecosystems but are not known to be present on Niue

Scientific Name	Common Names (abridged)	Family	Habit
Amaranthus hybridus	English: green amaranth, green pigweed, hybrid amaranth, slim amaranth, smooth amaranth, smooth pigweed	Amaranthaceae	herb
Amaranthus interruptus	English: amaranth	Amaranthaceae	herb
Amaranthus spinosus	English: edlebur, needle burr, spiny amaranth, thorny pigweed; Other: pakai kuku (Hawai'i)	Amaranthaceae	herb
Ammannia auriculata		Lythraceae	herb
Anagallis arvensis	English: bird's-eye, poor-man's weatherglass, red chickweed, scarlet pimpernel, shepherd's-weatherglass	Primulaceae	herb
Andropogon gayanus	English: gamba grass, tambuki grass	Poaceae	grass
Andropogon glomeratus	English: bush beardgrass, bushy bluestem	Poaceae	grass
Andropogon virginicus	English: broomsedge, yellow bluestem, whisky grass	Poaceae	grass
Araujia sericifera	English: moth plant, moth catcher, white bladder flower	Asclepiadaceae	vine
Archontophoenix alexandrae	English: Alexandra palm, king palm	Arecaceae	tree (palm)
Ardisia crenata	English: hen's eyes, Hilo holly, coral berry, Australian holly, scratchthroat	Myrsinaceae	shrub
Ardisia elliptica	English: shoebutton ardisia; Other: venevene tinito (Cook Islands); ati popa'a, atiu (French Polynesia); togo vao (Samoa)	Myrsinaceae	shrub
Argyrea nervosa	English: elephant creeper, Hawaiian baby woodrose, silver morning glory, woolly morning glory	Convolvulaceae	vine
Aristolochia odoratissima	English: duck, swan	Aristolochiaceae	herb
Arthrostemma ciliatum	English: arthrostemma, everblooming eavender	Melastomataceae	herb
Arundinaria graminea		Poaceae	grass
Arundo donax	English: giant reed, Spanish reed, wild cane; Other: fiso palagi (Samoa); kaho folalahi (Tonga)	Poaceae	grass
Asclepias curassavica	English: bastard ipecac, blood flower, bloodflower milkweed, butterfly weed, false ipecac, milkweed; Other: tirika, tiare moko (Cook Islands); laulele, lauhele, nu'umela, pua 'anuhe (Hawai'i); pepetoa, vaomumu, vao fualele (Samoa); lou pepe, tu'ulapepe (Tonga)	Asclepiadaceae	herb
Asparagus densiflorus	English: asparagus fern, sprengeri fern, smilax, regal fern	Liliaceae	herb
Austroeuatorium inulaefolium		Asteraceae	herb
Averrhoa bilimbi	English: bilimbi, cucumber tree, tree cucumber, tree sorrel	Oxalidaceae	tree
Axonopus micay		Poaceae	grass
Azadirachta indica	English: neem, nim, margosa	Meliaceae	tree
Baccharis halimifolia	English: consumption weed, eastern baccharis, groundsel bush, groundsel tree, Sea Island myrtle, sea myrtle, silverling, tree groundsel, waterbrush	Asteraceae	shrub
Bacopa procumbens		Scrophulariaceae	herb
Barleria lupulina	English: hophead, Philippine violet	Acanthaceae	shrub
Barleria prionitis	English: barleria, porcupine flower	Acanthaceae	shrub
Bauhinia acuminata	English: dwarf white bauhinia	Fabaceae	tree
Bauhinia purpurea	English: purple orchid tree; purple butterfly tree	Fabaceae	tree
Bauhinia variegata	English: orchid tree; mountain ebony	Fabaceae	tree
Bidens alba	English: beggar's tick, Spanish needle, cobbler's pegs, romerillo; Other: ki, ki nehe, ki pipili, nehe (Hawai'i)	Asteraceae	herb
Bidens cynapiifolia		Asteraceae	herb
Blainvillea gayana		Asteraceae	herb
Bocconia frutescens	English: bocconia, plume-poppy, tree poppy, tree celandine, parrotweed	Papaveraceae	shrub
Boehmeria macrophylla	English: African jolanettle, false nettle	Urticaceae	herb
Boerhavia coccinea	English: boerhavia, hog weed, hog feed, red spiderling, wineflower, tar vine; Other: mata pavo, patagon	Nyctaginaceae	herb
Brachiaria eruciformis	English: sweet signal grass	Poaceae	grass
Brillantaisia lamium		Acanthaceae	herb

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Scientific Name	Common Names (abridged)	Family	Habit
Brugmansia suaveolens		Solanaceae	shrub
Bryophyllum delagoense	English: chandelier plant	Crassulaceae	succulent
Buddleja asiatica	English: dog tail; Other: huelo 'ilio (Hawai'i)	Scrophulariaceae	shrub
Buddleja davidii	English: orange eye, butterfly bush, summer lilac	Scrophulariaceae	shrub
Buddleja madagascariensis	English: butterfly bush, smoke bush	Scrophulariaceae	shrub
Caesalpinia decapetala	English: cat's claw, Mysore thorn, Mauritius thorn, wait-a-bit; Other: puakelekino (Hawai'i)	Fabaceae	shrub
Cajanus scarabaeoides	English: peanut grass (Fiji), tropical clover (Fiji)	Fabaceae	vine
Calamus spp.	English: rattan	Arecaceae	vine (palm)
Calliandra haematocephala	English: red powder puff	Fabaceae	shrub
Calliandra surinamensis	English: Surinamese stickpea	Fabaceae	tree
Callisia fragrans	English: fragrant inch plant, basketplant, spironema	Commelinaceae	herb
Calophyllum antillanum	English: Alexandrian laurel, Antilles calophyllum, beauty leaf, calaba, galba, Indian laurel, kamani, Santa Maria tree	Clusiaceae	tree
Calotis lappulacea	English: bur daisy, yellow daisy burr	Asteraceae	herb
Calotropis procera	English: calotropis, rubber bush, apple of Sodom, mudar, madar, king's crown, roostertree	Asclepiadaceae	shrub
Calyptocarpus vialis		Asteraceae	herb
Cardiospermum grandiflorum	English: balloon vine; heart seed; Other: kopupu takaviri? (Cook Islands)	Sapindaceae	vine
Carmona retusa	English: Fukien tea, Philippine tea, scorpionbush	Boraginaceae	tree
Carpobrotus edulis	English: ice plant, pigface, hottentot fig	Aizoaceae	succulent
Castilla elastica	English: Panama rubber tree, Mexican rubber tree, uletree; Other: pulu mamoe (American Samoa)	Moraceae	tree
Casuarina cunninghamiana	English: river oak, river she-oak, small cone ironwood	Casuarinaceae	tree
Casuarina glauca	English: swamp oak, saltmarsh ironwood, longleaf ironwood, gray sheoak	Casuarinaceae	tree
Cecropia obtusifolia	English: trumpet tree, guarumo; Other: rau-maniota (Cook Islands)	Cecropiaceae	tree
Cecropia peltata	English: trumpet tree	Cecropiaceae	tree
Cedrela odorata	English: cigar box cedar, Mexican cedar, West Indian cedar, Spanish cedar, Barbados cedar; Other: sita hina (Tonga)	Meliaceae	tree
Cenchrus brownii	English: burgrass, burr grass, sand-bur, slimbristle sandbur	Poaceae	grass
Centaurea melitensis	English: Maltese cockspur, Maltese star thistle, Napa thistle, yellow star thistle	Asteraceae	herb
Centaurium spicatum	English: spiked centaury	Gentianaceae	herb
Centratherum punctatum		Asteraceae	herb
Cestrum auriculatum		Solanaceae	shrub
Cestrum diurnum	English: inkberry, day jessamine, day cestrum, China berry; Other: ariki-va'ine (Cook Islands); makahala (Hawai'i); sugi vao, suni vao (Samoa); vaitohi (Tonga)	Solanaceae	shrub
Cestrum parqui	English: green cestrum, willow-leaved jessamine, Chilean cestrum, green poison-berry	Solanaceae	shrub
Chamaecrista mimosoides	English: Japanese tea	Fabaceae	herb
Chamaesyce thymifolia	English: red caustic creeper, thyme-leaved spurge	Euphorbiaceae	herb
Chenopodium ambrosioides	English: American wormseed, bluebush, Jerusalem tea, Mexican tea, Spanish-tea, wormseed	Chenopodiaceae	herb
Chenopodium murale	English: Australian-spinach, green fat hen, nettle-leaf goosefoot, salt-green, sowbane	Chenopodiaceae	herb
Chloris divaricata	English: slender chloris, star grass, star windmill grass	Poaceae	grass
Chloris radiata	English: plush-grass, radiate fingergrass	Poaceae	grass

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Scientific Name	Common Names (abridged)	Family	Habit
Chloris virgata	English: feather finger grass, feathered chloris, feathertop Rhodes grass, feathery Rhodes grass, oldland grass, sweet grass	Poaceae	grass
Chlorophytum comosum	English: ribbonplant, spider ivy, spiderplant	Liliaceae	herb
Chromolaena odorata	English: chromolaena, Siam weed, trifid weed, bitter bush, Jack in the bush	Asteraceae	shrub
Chrysobalanus icaco	English: coco plum, icaco	Chrysobalanaceae	shrub
Chrysophyllum oliviforme	English: satin leaf, wild star-apple, damson plum	Sapotaceae	tree
Chukrasia tabularis	English: Burmese almondwood, chickcrassy, Chittagong wood	Meliaceae	tree
Cinchona pubescens	English: quinine tree, red cinchona	Rubiaceae	tree
Cinnamomum burmannii	English: padang cassia	Lauraceae	tree
Cinnamomum camphora	English: camphor tree, camphor laurel	Lauraceae	tree
Cinnamomum verum	English: cinnamon tree; Other: tinamoni, tigamoni (American Samoa and Samoa)	Lauraceae	tree
Cirsium vulgare	English: spear thistle, Scotch thistle, bull thistle, black thistle, plume thistle; Other: pua kali (Hawai'i)	Asteraceae	herb
Cissus nodosa	English: grape ivy	Vitaceae	vine
Citharexylum caudatum	English: juniper berry	Verbenaceae	tree
Citharexylum gentryi		Verbenaceae	tree
Citharexylum spinosum	English: fiddlewood	Verbenaceae	tree
Clausena excavata	English: clausena	Rutaceae	tree
Cleome gynandra	English: African spider-flower, bastard-mustard, cat's-whiskers, spider wisp, wild spider flower; Other: honohina, 'ili'ohu (Hawai'i)	Capparaceae	herb
Cleome spinosa	English: spiny spider-flower	Capparaceae	herb
Clerodendrum japonicum	English: glorybower	Lamiaceae	shrub
Clerodendrum paniculatum	English: pagoda plant, pagoda flower	Lamiaceae	shrub
Clerodendrum quadriloculare	English: bronze-leaved clerodendrum; Other: losa, losa Fiti (American Samoa and Samoa)	Lamiaceae	shrub
Clidemia hirta	English: Koster's curse, soap bush; Other: la'au lau mamoe (Samoa)	Melastomataceae	shrub
Clitoria laurifolia	English: laurel-leaf pigeonwings	Fabaceae	shrub
Clitoria ternatea	English: butterfly pea, Asian pigeonwings; Other: paipa (Tonga)	Fabaceae	vine
Clusia rosea	English: signature tree, autograph tree, copley, Scotch attorney, pitchapple	Clusiaceae	tree
Coccinia grandis	English: ivy gourd, scarlet-fruited gourd	Cucurbitaceae	vine
Commelina benghalensis	English: Benghal dayflower, dayflower, hairy wandering Jew, wandering Jew; Other: hairy honohono (Hawai'i); mau'u Tonga (Samoa); kanini, kaningi, musie matala pulu (Tonga)	Commelinaceae	herb
Conocarpus erectus	English: sea mulberry, buttonwood, button mangrove	Combretaceae	shrub/tree
Conyza aegyptiaca	English: fleabane	Asteraceae	herb
Conyza sumatrensis	English: broadleaf fleabane, tall fleabane; Other: pakaka (Tonga)	Asteraceae	herb
Corchorus olitorius	English: Jew's mallow, jute, Nalta jute, tossa jute	Tiliaceae	herb
Corchorus trilocularis		Tiliaceae	herb
Cordia alliodora	English: laurel, Ecuador laurel, salmwood, Spanish elm; Other: kotia (Samoa, Tonga)	Boraginaceae	tree
Cordia curassavica	English: black sage	Boraginaceae	shrub
Cordia glabra	English: broad-leaved cordia	Boraginaceae	tree
Cortaderia jubata	English: jubata grass, Andean pampas grass, purple pampas grass	Poaceae	grass
Cortaderia selloana	English: pampas grass, silver pampas grass, Uruguayan pampas grass	Poaceae	grass

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Scientific Name	Common Names (abridged)	Family	Habit
<i>Corynocarpus laevigatus</i>	English: New Zealand laurel, karakara nut	Corynocarpaceae	tree
<i>Cosmos caudatus</i>	English: cosmos	Asteraceae	herb
<i>Cotula australis</i>	English: bachelor's-button, carrotweed, common cotula, Australian brass buttons	Asteraceae	herb
<i>Crotalaria incana</i>	English: fuzzy rattlepod, woolly rattlepod; Other: kukaehoki, kolomona (Hawai'i)	Fabaceae	shrub
<i>Crotalaria linifolia</i>	English: narrow-leaved crotalaria	Fabaceae	herb
<i>Crotalaria quinquefolia</i>	English: rattlepod	Fabaceae	herb
<i>Crotalaria retusa</i>	English: devil-bean, wedge-leaf crotalaria, wedge-leaf rattlepod; Other: piini? (Tonga)	Fabaceae	herb
<i>Crotalaria spectabilis</i>	English: rattlebox, showy crotalaria, showy rattlebox, showy rattlepod; Other: kolomona (Hawai'i); ha'apai (Tonga)	Fabaceae	herb
<i>Crotalaria zanzibarica</i>	English: curara-pea	Fabaceae	herb
<i>Cryptostegia grandiflora</i>	English: rubber vine, India rubber vine, Palay rubbervine	Asclepiadaceae	vine
<i>Cryptostegia madagascariensis</i>	English: Madagascar rubbervine	Asclepiadaceae	vine
<i>Cucumis dipsaceus</i>	English: hedgehog cucumber, hedgehog gourd, teasel gourd	Cucurbitaceae	herb
<i>Cupaniopsis anacardioides</i>	English: carrotwood, tuckeroo	Sapindaceae	tree
<i>Cuphea carthagenensis</i>	English: Columbian cuphea, Colombian waxweed, tarweed; Other: laau fau moti (Samoa)	Lythraceae	herb
<i>Cuscuta cassytoides</i>		Cuscutaceae	herb
<i>Cyathea cooperi</i>	English: Australian tree fern	Cyatheaceae	fern
<i>Cyathula prostrata</i>	English: cyathula; Other: mata kura (Cook Islands (Miti'aro?)); tolo'unga (Tonga)	Amaranthaceae	herb
<i>Cymbopogon refractus</i>	English: barbwire grass, soap grass; Other: aretu monoi, aretu noanoa (French Polynesia)	Poaceae	grass
<i>Cyperus cyperinus</i>	English: long-headed sedge; Other: mue mue, mou upo tutu (French Polynesia)	Cyperaceae	sedge
<i>Cyperus difformis</i>	English: dirty-Dora, one-arm sedge, rice sedge, small-flower umbrella-plant, variable flat sedge	Cyperaceae	sedge
<i>Cyperus distans</i>	English: slender cyperus	Cyperaceae	sedge
<i>Cyperus haspan</i>		Cyperaceae	sedge
<i>Cyperus iria</i>	English: grasshopper's cyperus, rice flat sedge, umbrella sedge; Other: mou, mou hairi (French Polynesia)	Cyperaceae	sedge
<i>Cyperus ligularis</i>	English: rocket sedge, swamp flatsedge	Cyperaceae	sedge
<i>Cyperus pilosus</i>		Cyperaceae	sedge
<i>Cyrtococcum patens</i>		Poaceae	grass
<i>Cyrtococcum trigonum</i>	English: short-leaf cyrtococcum grass	Poaceae	grass
<i>Dactylis glomerata</i>	English: barnyard grass, cocksfoot, cockspur, orchard grass	Poaceae	grass
<i>Dalbergia sissoo</i>	English: Indian dalbergia, Indian rosewood, sissoo, shisham	Fabaceae	tree
<i>Datura ferox</i>	English: fierce thorn-apple, large thorn-apple, long-spine thorn-apple	Solanaceae	herb
<i>Datura innoxia</i>	English: angel's-trumpet, downy thorn-apple, Indian-apple, sacred datura, thorn-apple	Solanaceae	herb
<i>Datura stramonium</i>	English: datura, jimsonweed, moonflower, purple thorn-apple, thorn-apple; Other: la'au hano, kikania, kikania haole (Hawai'i)	Solanaceae	herb
<i>Delairea odorata</i>	English: German ivy, Italian ivy, cape ivy	Asteraceae	vine
<i>Dentella repens</i>		Rubiaceae	herb
<i>Derris elliptica</i>	English: derris	Fabaceae	vine
<i>Desmanthus virgatus</i>	English: slender mimosa, virgate mimosa	Fabaceae	shrub
<i>Desmodium gangeticum</i>		Fabaceae	herb
<i>Desmodium heterophyllum</i>	English: hetero, Spanish clover	Fabaceae	herb
<i>Desmodium intortum</i>	English: beggarlice, green-leaf desmodium	Fabaceae	herb
<i>Desmodium nicaraguense</i>		Fabaceae	shrub

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Desmodium scorpiurus		Fabaceae	herb
Desmodium tortuosum	English: Florida beggarweed, Spanish clover, dixie ticktrefoil	Fabaceae	herb
Dichrostachys cinerea	English: aroma, Kalahari Christmas tree, Chinese lantern tree, sickle bush, marabou-thorn, marabú	Fabaceae	shrub
Digitaria bicornis	English: southern crabgrass	Poaceae	grass
Digitaria eriantha	English: common finger grass, digit grass, pangola grass, woolly finger grass	Poaceae	grass
Digitaria fuscescens	English Y grass; Other: creeping kukaepua'a (Hawai'i)	Poaceae	grass
Digitaria horizontalis		Poaceae	grass
Digitaria insularis	English: cottongrass, sourgrass, feather-top grass	Poaceae	grass
Digitaria sanguinalis	English: crab finger grass, hairy crabgrass, large crabgrass, manne terrestre, panic sanguin, summer grass	Poaceae	grass
Dillenia suffruticosa	English: shrubby dillenia, shrubby simpoh	Dilleniaceae	shrub/tree
Diploaxis muralis	English: wall rocket	Brassicaceae	herb
Drymaria cordata	English: drymaria, tropical chickweed, West Indian chickweed; Other: pipili, piipili (Hawai'i)	Caryophyllaceae	herb
Duranta erecta	English: duranta, golden dewdrop, pigeon-berry, sky-flower; Other: 'olive (Tonga)	Verbenaceae	shrub
Echinochloa polystachya	English: aleman grass, carib grass, creeping rivergrass	Poaceae	grass
Echinochloa stagnina	English: barnyard grass, burgu grass, hippo grass, long-awn water grass	Poaceae	grass
Elaeocarpus angustifolius	English: blue fig, blue marble tree, quandong (Australia); Other: apatua, siapatua, siapatua (American Samoa and Samoa)	Elaeocarpaceae	tree
Eleocharis dulcis	English: Chinese water-chestnut, ground-chestnut, waternut; Other: utu utu (Samoa)	Cyperaceae	sedge
Eleocharis geniculata	English: spikerush	Cyperaceae	sedge
Elephantopus mollis	English: elephantopus, elephant's foot, tobacco weed; Other: tapuvae 'erepani, tapuae 'erepani, vaevae 'erepani, tapua 'erepani? (Cook Islands); lata hina, lau veveli (Tonga)	Asteraceae	herb
Elettaria cardamomum	English: cardamom	Zingiberaceae	herb
Emex australis	English: doublegee, spiny emex, three-corner Jack	Polygonaceae	herb
Emex spinosa		Polygonaceae	herb
Emilia coccinea	English: Flora's paintbrush, tasselflower	Asteraceae	herb
Emilia fosbergii	Other: pualele (Hawai'i)	Asteraceae	herb
Episcia cupreata	English: episcia, flame violet	Gesneriaceae	herb
Eragrostis cilianensis	English: gray love grass, stinkgrass	Poaceae	grass
Eragrostis elongata	English: clustered lovegrass (Australia)	Poaceae	grass
Eragrostis pilosa	English: hairy love grass, Indian love grass, soft lovegrass	Poaceae	grass
Eragrostis tenuifolia	English: elastic grass, love grass	Poaceae	grass
Eragrostis tremula		Poaceae	grass
Eragrostis unioloides		Poaceae	grass
Erechtites hieraciifolius	English: American burnweed, American fireweed, burnweed, fireweed, Malayan groundsel, pilewort	Asteraceae	herb
Erechtites valerianifolia	English: Brazilian fireweed, fireweed, fireweed daisy, Ceylon thistle; Other: fua lele, pua lele (Samoa); fisi puna (Tonga)	Asteraceae	herb
Eremochloa ophiuroides	English: centipede grass	Poaceae	grass
Erigeron bellioides		Asteraceae	herb
Erigeron karvinskianus	English: Mexican daisy, seaside daisy, daisy fleabane	Asteraceae	herb
Eriochloa procera		Poaceae	grass
Eryngium foetidum	English: false coriander, shadow-beni, stinkweed	Apiaceae	herb
Euphorbia helioscopia	English: sun spurge	Euphorbiaceae	herb
Euphorbia peplus	English: petty spurge	Euphorbiaceae	herb
Eustachys petraea		Poaceae	grass
Fallopia convolvulus	English: black bindweed, wild buckwheat	Polygonaceae	herb

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Ficus altissima	English: lofty fig, false banyan, council tree	Moraceae	tree
Ficus benghalensis	English: banyan, Indian banyan, vada tree; Other: pulu (Samoa)	Moraceae	tree
Ficus benjamina	English: weeping fig, baka, Java fig, weeping fig, Benjamin tree; Other: 'ovava Fisi (Tonga)	Moraceae	tree
Ficus macrophylla	English: Moreton Bay fig	Moraceae	tree
Ficus microcarpa	English: Chinese banyan, Malayan banyan, Indian laurel	Moraceae	tree
Ficus nota	English: tibig	Moraceae	tree
Ficus rubiginosa	English: rusty-leaved fig, Port Jackson fig, littleleaf fig	Moraceae	tree
Filicium decipiens	English: fern tree, soapberry	Sapindaceae	tree
Fimbristylis autumnalis	English: slender fimbristylis	Cyperaceae	sedge
Fimbristylis littoralis	English: grass-like fimbristylis, lesser fimbristylis	Cyperaceae	sedge
Flacourtia indica	English: batoko-plum, governor's-plum, Indian-plum, Madagascar-plum, ramontchi	Flacourtiaceae	tree
Flacourtia rukam	English: Indian plum, Indian prune, governor's plum; Other: filimoto (American Samoa, Fiji, Futuna, Samoa and Tonga)	Flacourtiaceae	tree
Flemingia macrophylla		Fabaceae	tree
Flemingia strobilifera	English: luck plant, wild hops	Fabaceae	shrub
Flindersia brayleyana	English: Queensland maple, silkwood	Rutaceae	tree
Fuirena umbellata		Cyperaceae	sedge
Funtumia elastica	English: African rubber tree, silkubber; Other: pulu vao (Samoa)	Apocynaceae	tree
Furcraea hexapetala	English: Cuban hemp, hemp	Agavaceae	succulent
Galinsoga parviflora	English: gallant soldier, small-flower galinsoga, yellow weed	Asteraceae	herb
Galinsoga quadriradiata	English: hairy galinsoga, Peruvian daisy	Asteraceae	herb
Gamochaeta pensylvanica	English: Pennsylvania cudweed	Asteraceae	herb
Gamochaeta purpurea	English: purple cudweed	Asteraceae	herb
Gmelina arborea	English: gmelina, white teak, white beech	Lamiaceae	tree
Gmelina asiatica	English: badhara bush, Asiatic beechberry, oval-leafed gmelina	Lamiaceae	shrub
Gmelina elliptica		Lamiaceae	shrub
Gomphocarpus physocarpus	English: balloon plant, balloon cottonbush, bladderbush, wild cotton	Asclepiadaceae	shrub
Gomphrena celosioides	English: gomphrena weed	Amaranthaceae	herb
Gomphrena serrata		Amaranthaceae	herb
Grevillea banksii	English: kahili flower, Banks grevillea; Other: ha'iku, kahili (Hawai'i); 'oka pua 'ula'ula (Hawai'i (Ni'ihau))	Proteaceae	tree
Grewia asiatica	English: phalsa	Tiliaceae	tree
Gymnocoronis spilanthoides	English: Senegal tea, temple plant	Asteraceae	herb
Haematoxylum campechianum	English: logwood, bloodwood tree, campeachy wood, campeche	Fabaceae	tree
Harungana madagascariensis	English: harungana	Clusiaceae	tree
Hedera helix	English: English ivy, ivy	Araliaceae	vine
Hedychium coronarium	English: white ginger, butterfly lily, ginger lily, garland flower; Other: teuila paepae (American Samoa and Samoa); kopi teatea, re'a teatea (Cook Islands); thevunga (Tonga); 'awapuhi ke'oke'o (Hawai'i)	Zingiberaceae	herb
Hedychium gardnerianum	English: kahili ginger; Other: kopi (Cook Islands); kahili, 'awapuhi kahili (Hawai'i)	Zingiberaceae	herb
Helianthus argophyllus	English: silverleaf sunflower; Other: siola'a (Samoa)	Asteraceae	herb
Heliocarpus popayanensis	English: moho, white moho	Tiliaceae	tree
Heliotropium indicum	English: Indian heliotrope, turnsole	Boraginaceae	herb

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<i>Heliotropium procumbens</i> var. <i>depressum</i>		Boraginaceae	herb
<i>Hemigraphis reptans</i>		Acanthaceae	herb
<i>Heterocentron subtriplinervium</i>	English: pearl flower	Melastomataceae	herb
<i>Hevea brasiliensis</i>	English: hevea, Brazilian rubber tree, Para rubber tree	Euphorbiaceae	tree
<i>Hippobroma longiflora</i>	English: star of Bethlehem, fetia, madamfate; Other: pua hoku (Hawai'i)	Campanulaceae	herb
<i>Hiptage benghalensis</i>	English: hiptage	Malpighiaceae	shrub
<i>Homalanthus populifolius</i>	English: native bleeding-heart	Euphorbiaceae	tree
<i>Hovenia dulcis</i>	English: Chinese raisintree, Japanese raisintree	Rhamnaceae	tree
<i>Hura crepitans</i>	English: sandbox tree	Euphorbiaceae	tree
<i>Hydrocotyle bonariensis</i>	English: pennywort, kurnell curse, large-leaved pennywort	Apiaceae	herb
<i>Hydrocotyle ranunculoides</i>	English: water pennywort	Apiaceae	herb
<i>Hymenachne amplexicaulis</i>	English: hymenachne, trompetilla, West Indian marsh grass	Poaceae	grass
<i>Hyparrhenia rufa</i>	English: jaragua grass, thatching grass	Poaceae	grass
<i>Hypericum androsaemum</i>	English: amber, sweet amber, tutsan	Clusiaceae	shrub
<i>Hypericum canariense</i>	English: Canary Islands St. Johnswort	Clusiaceae	shrub
<i>Hypericum perforatum</i>	English: goatweed, Klamath weed, St. John's-wort	Clusiaceae	herb
<i>Hypochoeris glabra</i>	English: smooth cats-ear	Asteraceae	herb
<i>Hypochoeris radicata</i>	English: hairy cat's ear, gosmore	Asteraceae	herb
<i>Hyptis capitata</i>	English: knobweed; Other: maa uupo (French Polynesia)	Lamiaceae	herb
<i>Hyptis mutabilis</i>	English: tropical bushmint	Lamiaceae	herb
<i>Hyptis pectinata</i>	English: comb hyptis, comb bushmint, mint weed, purple top; Other: miri tita (Cook Islands ('Atiu)); vao mini (Samoa)	Lamiaceae	herb
<i>Impatiens walleriana</i>	English: garden impatiens, balsam, busy lizzy, bizzy-lizzie, patient Lucy; sultan's flower	Balsaminaceae	herb
<i>Imperata conferta</i>	English: plume grass	Poaceae	grass
<i>Imperata cylindrica</i>	English: blady grass, cogon grass, satintail	Poaceae	grass
<i>Indigofera linifolia</i>		Fabaceae	herb
<i>Inga edulis</i>	English: ice cream bean	Fabaceae	tree
<i>Ipomoea alba</i>	English: moonflower; Other: koali pehu (Hawai'i), fue sina, fue to (Samoa)	Convolvulaceae	vine
<i>Ipomoea hederifolia</i>	English: ivy-leaf morning glory, star ipomoea, trompillo	Convolvulaceae	vine
<i>Ipomoea obscura</i>		Convolvulaceae	vine
<i>Ipomoea ochracea</i>		Convolvulaceae	vine
<i>Ipomoea purpurea</i>	English: common morning-glory, tall morning-glory	Convolvulaceae	herb
<i>Isachne globosa</i>		Poaceae	grass
<i>Ischaemum polystachyum</i>	English: paddle grass	Poaceae	grass
<i>Ischaemum rugosum</i>	English: muraina grass, wrinkle duck-beak, saramatta grass	Poaceae	grass
<i>Ischaemum timorense</i>	English: centipede grass, stalkleaf murainagrass, lucuntu grass	Poaceae	grass
<i>Jasminum fluminense</i>	English: Brazilian jasmine	Oleaceae	vine
<i>Jatropha gossypifolia</i>	English: bellyache bush, cotton-leaved physic nut	Euphorbiaceae	shrub
<i>Juncus</i> spp.	English: rush	Juncaceae	rush
<i>Justicia carnea</i>	English: pink plume-flower, pink jacobinia	Acanthaceae	shrub
<i>Justicia procumbens</i>		Acanthaceae	herb
<i>Khaya senegalensis</i>	English: African mahogany, Senegal mahogany	Meliaceae	tree
<i>Koanophyllon solidaginoides</i>		Asteraceae	herb?
<i>Koelreuteria elegans</i>	English: Chinese rain tree, flame gold, golden rain tree	Sapindaceae	tree

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Scientific Name	Common Names (abridged)	Family	Habit
<i>Kunzea ericoides</i>	English: tree manuka, tree manuba, kanuka (New Zealand), burgan, white teatree	Myrtaceae	tree
<i>Kyllinga melanosperma</i>		Cyperaceae	sedge
<i>Kyllinga polyphylla</i>	English: Navua sedge; Other: tuise tele, tuise fiti (Samoa)	Cyperaceae	sedge
<i>Lantana montevidensis</i>	English: creeping lantana, purple lantana, small lantana, trailing lantana weeping lantana	Verbenaceae	herb
<i>Leersia hexandra</i>	English: cutgrass	Poaceae	grass
<i>Leonotis nepetifolia</i>	English: lion's tail, lion's ear, Christmas candlestick	Lamiaceae	herb
<i>Lepidium ruderales</i>	English: peppergrass	Brassicaceae	herb
<i>Lepidium sativum</i>	English: garden cress	Brassicaceae	herb
<i>Leptospermum polygalifolium</i>		Myrtaceae	shrub
<i>Leptospermum scoparium</i>	English: New Zealand tea; manuka (New Zealand)	Myrtaceae	tree
<i>Leucas lavandulifolia</i>		Lamiaceae	herb
<i>Licuala grandis</i>	English: ruffled fan palm	Arecaceae	tree (palm)
<i>Ligustrum spp.</i>	English: privet	Oleaceae	shrubs/ trees
<i>Limonia acidissima</i>	English: elephant-apple, Indian wood-apple, wood-apple	Rutaceae	tree
<i>Lindernia antipoda</i>		Scrophulariaceae	herb
<i>Lindernia crustacea</i>	Other: moomai pere, haehaa, mataura (French Polynesia)	Scrophulariaceae	herb
<i>Lindernia nummulariifolia</i>		Scrophulariaceae	herb
<i>Litsea glutinosa</i>	English: Indian laurel	Lauraceae	tree
<i>Lobelia zeylanica</i>	English: white root	Campanulaceae	herb
<i>Lolium multiflorum</i>	English: Italian ryegrass	Poaceae	grass
<i>Lophostemon confertus</i>	English: brush box, Brisbane box, vinegar tree	Myrtaceae	tree
<i>Ludwigia hyssopifolia</i>		Onagraceae	herb
<i>Ludwigia longifolia</i>	English: longleaf primrose-willow	Onagraceae	herb
<i>Ludwigia octovalvis</i>	English: willow primrose, false primrose, yellow willow herb; Other: tiemu (Cook Islands); pitorea (Cook Islands (Ngaputoru and Mangaia), French Polynesia (leeward Society Islands); kamole, alohalua, kamole lau li'i, kamole lau nui (Hawai'i); laavai, mautofu vao, fua samasama (Samoa)	Onagraceae	herb
<i>Ludwigia peruviana</i>	English: ludwigia, Peruvian primrose, water primrose	Onagraceae	herb
<i>Lycopersicon pimpinellifolium</i>	English: currant tomato	Solanaceae	herb
<i>Lygodium palmatum</i>	English: Hartford fern, American climbing fern, creeping fern, Windsor fern	Schizaeaceae	fern
<i>Maesopsis eminii</i>	English: umbrella tree, musizi	Rhamnaceae	tree
<i>Malachra alceifolia</i>	English: malachra	Malvaceae	herb
<i>Malva parviflora</i>	English: cheeseweed, Egyptian mallow, little mallow, small-flower mallow	Malvaceae	herb
<i>Malvastrum americanum</i>	English: Indian Valley false mallow	Malvaceae	herb
<i>Marrubium vulgare</i>	English: common horehound, horehound, white horehound	Lamiaceae	herb
<i>Martynia annua</i>	English: devil's claw, iceplant, small-fruit devil's claw, tiger's-claw	Martyniaceae	herb
<i>Medicago lupulina</i>	English: black medic, hop-clover, nonesuch, yellow trefoil	Fabaceae	herb
<i>Medicago polymorpha</i>	English: burr medic, California bur-clover, hairy medic, toothed bur-clover, toothed medic	Fabaceae	herb
<i>Medinilla cumingii</i>	English: medinilla	Melastomataceae	shrub
<i>Medinilla magnifica</i>	English: chandelier tree, showy melastome, showy medinilla, Malaysian orchid	Melastomataceae	shrub
<i>Medinilla venosa</i>	English: holdtight	Melastomataceae	shrub
<i>Melaleuca quinquenervia</i>	English: melaleuca, cajeput, paper bark tree, punk tree	Myrtaceae	tree
<i>Melastoma candidum</i>	English: Asian melastome, Indian rhododendron, Malabar melastome	Melastomataceae	tree

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Scientific Name	Common Names (abridged)	Family	Habit
Melastoma sanguineum	English: fox-tongued melastoma, red melastome	Melastomataceae	shrub/tree
Melicoccus bijugatus	English: Spanish lime	Sapindaceae	tree
Melinis repens	English: Natal redtop, Natal grass, red Natal grass, Holme's grass, blanketgrass; Other: salapona (Tonga)	Poaceae	grass
Melochia corchorifolia		Sterculiaceae	herb
Melochia umbellata		Sterculiaceae	shrub
Memecylon floribundum		Melastomataceae	shrub
Merremia bracteata	Other: ambui (Solomon Islands)	Convolvulaceae	vine
Merremia hirta		Convolvulaceae	vine
Merremia pacifica		Convolvulaceae	vine
Merremia umbellata	English: yellow wood rose	Convolvulaceae	vine
Miconia calvescens	English: miconia, velvetleaf, purple plague, bush currant	Melastomataceae	tree
Microlaena stipoides	English: meadow ricegrass, weeping grass	Poaceae	grass
Mikania scandens	English: climbing hempweed, climbing hempvine	Asteraceae	vine
Mimosa pigra	English: catclaw mimosa, thorny sensitiveplant, giant mimosa, giant sensitive plant, black mimosa, zaraz, dormilona, bashful plant, amourette violet	Fabaceae	shrub
Mitracarpus hirtus	English: tropical girdlepod	Rubiaceae	herb
Montanoa hibiscifolia	English: montanoa, tree daisy, Anzac flower	Asteraceae	shrub
Morella cerifera	English: bayberry, candleberry, southern bayberry, southern wax-myrtle, wax-myrtle, waxberry	Myricaceae	tree
Morella faya	English: fayatree, firetree, firebush	Myricaceae	tree
Mucuna pruriens	English: cow itch, velvet bean, Bengal bean, Mauritius bean	Fabaceae	vine
Muntingia calabura	English: jam tree, strawberry tree, Jamaican cherry, Singapore cherry, Panama cherry, Panama berry, ornamental cherry, calabura, sirsen; Other: venevene (Cook Islands (Penrhyn)); capulin (French Polynesia)	Tiliaceae	tree
Neyraudia reynaudiana	English: Burma reed, cane grass, silk reed	Poaceae	grass
Noronhia emarginata	English: Madagascar olive	Oleaceae	tree
Ochna kirkii	English: Micky Mouse plant, bird's-eye bush	Ochnaceae	shrub
Ochna serrulata	English: ochna, Mickey-Mouse plant, bird's-eye bush	Ochnaceae	shrub
Ochroma pyramidale	English: balsa, corkwood, down tree	Bombacaceae	tree
Ocimum gratissimum	English: wild basil, clove basil, tree basil; Other: miri tita, miri tutae puaka, miri nganga'ere, miri tupapaku (Cook Islands); miri papa'a, miri taratoni (Cook Islands, French Polynesia); la'au sauga (Samoa)	Lamiaceae	herb
Oldenlandia pumila		Rubiaceae	herb
Olea europaea	English: olive; Other: 'oliwa, 'oliwa haole (Hawai'i)	Oleaceae	tree
Olyra latifolia		Poaceae	grass
Oplismenus burmannii		Poaceae	grass
Opuntia dillenii	English: dildo, Eltham indian fig, sweet prickly-pear	Cactaceae	cactus
Opuntia ficus-indica	English: Barbary-fig, Indian-fig, mission cactus, prickly-pear; Other: panini, papipi (Hawai'i)	Cactaceae	cactus
Opuntia monacantha	English: drooping tree pear, prickly pear; Other: lauaufai va (Samoa)	Cactaceae	cactus
Opuntia stricta	English: erect prickly-pear, southern spineless cactus	Cactaceae	cactus
Ossaea marginata		Melastomataceae	shrub
Oxalis barrelieri	Other: a'aa'a'ii, vine (Samoa)	Oxalidaceae	herb
Oxalis debilis	English: pink wood-sorrel, lilac oxalis; Other: 'ihi pehu (Hawai'i), 'ii (Samoa)	Oxalidaceae	herb
Oxyspora paniculata	English: oxyspora, bristletips	Melastomataceae	shrub
Paederia foetida	English: stink vine, skunk vine; Other: maile pilau, maile ka kahiki (Hawai'i).	Rubiaceae	vine
Panicum decompositum	English: Australian millet, umbrella grass	Poaceae	grass
Panicum polygonatum		Poaceae	grass

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Panicum repens	English: torpedo grass, couch panicum, creeping panic; Other: wainaku grass (Hawai'i)	Poaceae	grass
Paraserianthes lophantha	English: brush wattle, plume albizia, plume acacia, stink bean	Fabaceae	shrub/tree
Parkinsonia aculeata	English: parkinsonia, Jerusalem thorn, horse-bean, retama	Fabaceae	tree
Parthenium hysterophorus	English: bitterweed, carrot grass, false ragweed, feverfew, parthenium weed, whitetop, Santa Maria	Asteraceae	herb
Paspalum fimbriatum	English: fimbriate paspalum, winged paspalum, Panama paspalum, Panama crowngrass, Columbia grass	Poaceae	grass
Paspalum notatum	English: Bahia grass	Poaceae	grass
Paspalum setaceum		Poaceae	grass
Paspalum urvillei	English: Vasey grass; Other: tinikarati (Cook Islands (Mangaia))	Poaceae	grass
Passiflora alata	English: wild passion fruit, wingstem passionflower	Passifloraceae	vine
Passiflora caerulea	English: blue passion flower	Passifloraceae	vine
Passiflora coccinea	English: scarlet passion flower, red passion flower, red granadilla	Passifloraceae	vine
Passiflora incarnata	English: purple passion-flower, red-flowered poka, apricot-vine, maypop, maypop passionflower	Passifloraceae	vine
Passiflora ligularis	English: sweet granadilla, yellow passionfruit; Other: lemi wai, lani wai, lemona (Hawai'i)	Passifloraceae	vine
Passiflora pulchella	English: two-lobed passion flower, wingleaf passionfruit	Passifloraceae	vine
Passiflora rubra	English: red passionfruit, Dutchman's laudanum; Other: pokutekute (Cook Islands ('Atiu))	Passifloraceae	vine
Passiflora suberosa	English: wild passionfruit, devil's pumpkin, indigo berry, corky passionflower, corkstem passionflower; Other: huehue haole (Hawai'i)	Passifloraceae	vine
Passiflora subpeltata	English: white passionflower	Passifloraceae	vine
Passiflora tarminiana	English: banana poka, banana passionfruit, bananadilla	Passifloraceae	vine
Paulownia tomentosa	English: paulownia, princess-tree, Chinese empress tree, karri-tree	Scrophulariaceae	tree
Pennisetum clandestinum	English: kikuyu grass, kikuyo	Poaceae	grass
Pennisetum glaucum	English: bajra, bulrush millet, burr bristle grass, cat's tail grass, cattail millet, mongoose tail grass (Fiji), pearl millet, yellow bristle grass, yellow foxtail	Poaceae	grass
Pennisetum macrourum	English: African feathergrass, bedding grass	Poaceae	grass
Pennisetum polystachion	English: mission grass, feathery pennisetum	Poaceae	grass
Pennisetum setaceum	English: fountain grass	Poaceae	grass
Pereskia aculeata	English: Barbados gooseberry, leafy cactus, lemon vine, pereskia creeper	Cactaceae	shrub
Persicaria glabra	Other: kamole (Hawai'i)	Polygonaceae	herb
Phaseolus lunatus	English: lima bean, butter bean, Burma bean, haricot bean, Madagascar bean, sieva bean, sugar bean; Other: piini 'ae puaka (Tonga)	Fabaceae	herb
Philadelphus karwinskyanus	English: philadelphus, evergreen mock orange, syringa	Saxifragaceae	shrub
Phormium tenax	English: New Zealand flax, New Zealand hemp, bush flax	Agavaceae	herb
Phyla nodiflora	English: fogfruit, lippia, phyla	Verbenaceae	herb
Phyllanthus debilis		Euphorbiaceae	herb
Phyllanthus tenellus	English: long-stalk phyllanthus, Mascarene Island leaf-flower	Euphorbiaceae	herb
Phyllanthus urinaria		Euphorbiaceae	herb
Phyllostachys bissetii		Poaceae	shrub
Phyllostachys nigra	English: black bamboo	Poaceae	shrub
Phytolacca octandra	English: pokeweed, Southern pokeberry, ink weed (Australia)	Phytolaccaceae	shrub
Pimenta dioica	English: pimento, allspice; Other: sipaisi (Tonga)	Myrtaceae	tree
Pimenta racemosa	English: bay rum tree, bay oil tree, malagueta; Other: sinamoni (Tonga)	Myrtaceae	tree
Pinus elliottii	English: slash pine	Pinaceae	tree

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Piper aduncum	English: spiked pepper	Piperaceae	shrub/tree
Piper auritum	English: eared pepper, anise piper, Veracruz pepper; Other: 'ava Tonga (Samoa), kava Hawai'i (Tonga)	Piperaceae	shrub
Piriqueta ovata		Turneraceae	herb
Pithecellobium dulce	English: Madras thorn, Manila tamarind, sweet inga; Other: 'opiuma (Hawai'i)	Fabaceae	tree
Pittosporum pentandrum	English: pittosporum, Taiwanese cheesewood, mamalis	Pittosporaceae	shrub/tree
Pittosporum tobira	English: tobira, Japanese pittosporum, Japanese cheesewood, mock orange, Australian laurel	Pittosporaceae	shrub/tree
Pittosporum undulatum	English: Victorian box, Victorian laurel, Australian cheesewood, mock orange, sweet pittosporum, orange pittosporum	Pittosporaceae	tree
Pittosporum viridiflorum	English: cape pittosporum	Pittosporaceae	tree
Plantago debilis		Plantaginaceae	herb
Platyserium bifurcatum	English: elkhorn fern, staghorn fern	Selaginellaceae	fern
Pluchea carolinensis	English: sour bush	Asteraceae	shrub
Pluchea indica	English: Indian fleabane, Indian pluchea, Indian camphorweed	Asteraceae	shrub
Polygonum capitatum		Polygalaceae	herb
Polygonum dichotomum		Polygonaceae	herb
Polygonum minus	English: smartweed	Polygonaceae	herb
Praxelis clematidea	English: praxelis	Asteraceae	herb
Prosopis spp.	English: mesquite, algaroba	Fabaceae	tree
Psidium cattleianum	English: strawberry guava, cherry guava, Cattley guava, Chinese guava; Other: tuava papa'a (Cook Islands); tuava tinito, tuvava tinito (French Polynesia); waiawi 'ula'ula (Hawai'i); ku'ava (Samoa)	Myrtaceae	tree
Psidium guineense	English: Brazilian guava, Guinea guava	Myrtaceae	shrub/tree
Ptychosperma macarthurii	English: cluster palm, hurricane palm, Macarthur feather palm, Macarthur palm	Arecaceae	tree (palm)
Pyrostegia venusta	English: flame vine, flame flower, golden shower, orange trumpet vine	Bignoniaceae	vine
Rhodomyrtus tomentosa	English: rose myrtle, downy myrtle, Isenberg bush	Myrtaceae	shrub
Rhynchospora caduca		Cyperaceae	herb
Rivina humilis	English: baby pepper, bloodberry, coral berry, rouge plant; Other: polo (Tonga)	Phytolaccaceae	herb
Rosa laevigata	English: Cherokee rose	Rosaceae	shrub
Rottboellia cochinchinensis	English: guinea-fowl grass, itchgrass, Kelly grass, kokoma grass, Raoul grass	Poaceae	grass
Rubus adenotrichos		Rosaceae	shrub
Rubus alceifolius	English: giant bramble	Rosaceae	shrub
Rubus argutus	English: prickly Florida blackberry; Other: ohelo 'ele 'ele (Hawai'i)	Rosaceae	shrub
Rubus glaucus	English: Andean blackberry, Andean black raspberry	Rosaceae	shrub
Rubus megalococcus		Rosaceae	shrub
Rubus moluccanus	English: Molucca raspberry, broad leafed bramble, Molucca bramble, eelkek	Rosaceae	shrub
Rubus niveus	English: Ceylon raspberry, hill raspberry, Mysore raspberry	Rosaceae	shrub
Rubus rosifolius	English: roseleaf raspberry, thimbleberry, Mauritius raspberry; Other: ola'a, akala, akalakala (Hawai'i)	Rosaceae	shrub
Rubus sieboldii	English: Molucca raspberry	Rosaceae	shrub
Rubus spp.	English: raspberries, blackberries, brambles	Rosaceae	shrub
Rubus ulmifolius	English: elm-leaf blackberry	Rosaceae	shrub
Ruellia brevifolia		Acanthaceae	herb
Ruellia tuberosa	English: large bell-flower (Samoa); Other: vaouliuli lautele (Samoa)	Acanthaceae	herb
Rumex brownii	English: brown dock, hooked dock, slender dock, swamp dock	Polygonaceae	herb

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Scientific Name	Common Names (abridged)	Family	Habit
Rumex crispus	English: curled dock, curly dock, sour dock, yellow dock	Polygonaceae	herb
Rumex pulcher	English: fiddle dock	Polygonaceae	herb
Saccharum spontaneum	English: wild cane, false sugarcane; Other: to aheo (French Polynesia); vao tolo (Samoa)	Poaceae	grass
Sacciolepis indica	English: glenwood grass	Poaceae	grass
Sacciolepis interrupta		Poaceae	grass
Sanchezia nobilis	English: sanchezia.	Acanthaceae	shrub
Schefflera actinophylla	English: octopus tree, umbrella tree, ivy palm	Araliaceae	tree
Schefflera arboricola	English: dwarf brassia, dwarf schefflera, Hawaiian elf schefflera	Araliaceae	shrub
Schinus molle	English: pepper tree, California pepper tree, Peruvian peppertree, pepperina	Anacardiaceae	tree
Schinus terebinthifolius	English: Christmas-berry, Brazilian pepper, Brazilian holly; Other: wilelaiki (Hawai'i), naniohilo (Hawai'i (Moloka'i))	Anacardiaceae	tree
Schizachyrium condensatum	English: little bluestem, bush beardgrass	Poaceae	grass
Scoparia dulcis	English: scoparia, sweet broom	Scrophulariaceae	herb
Senecio madagascariensis	English: fireweed	Asteraceae	herb
Senecio quadridentatus	English: cotton fireweed	Asteraceae	herb
Senna bicapsularis	English: Christmasbush, moneybush, rambling cassia	Fabaceae	shrub
Senna hirsuta	English: stinking cassia (Fiji)	Fabaceae	shrub
Senna multiglandulosa		Fabaceae	shrub
Senna obtusifolia	English: habucha, coffeeweed, sicklepod	Fabaceae	herb
Senna septemtrionalis	English: buttercup bush, yellow shower, laburnum; Other: kolomona, kalamona (Hawai'i)	Fabaceae	shrub/tree
Senna sophera	Other: matui (Tonga)	Fabaceae	herb
Sesbania cannabina	English: canicha, dhaincha, dhunchi, sesbania pea	Fabaceae	shrub
Sesbania grandiflora	English: sesbania, hummingbird tree, sesban, scarlet wisteria tree, corkwood tree; Other: oufai, ofai, ouai (French Polynesia); ohai ke'oke'o (Hawai'i); sepania (Samoa)	Fabaceae	small tree
Sesbania punicea	English: red sesbania, coffee weed, rattle-pod, sesban, red seine bean, Brazil rattlebox, coffee of the coast, tame acacia, false poinciana, black acacia, purple sesbane	Fabaceae	shrub
Setaria barbata	English: bristly foxtail grass	Poaceae	grass
Setaria italica	English: foxtail millet, German millet, Hungarian millet, Italian millet	Poaceae	grass
Setaria palmifolia	English: palmgrass, short pitpit, hailans pitpit, broadleaved bristlegrass; Other: vao 'ofe'ofe (Samoa)	Poaceae	grass
Setaria parviflora	English: knotroot bristle grass, knotroot foxtail, perennial foxtail, slender pigeon grass, yellow foxtail; Other: mau'u Kaleponi (Hawai'i)	Poaceae	grass
Setaria pumila	English: foxtail, garden bristle grass, hairy-tail grass, yellow bristlegrass, Queensland pigeon grass (Australia), cat's tail grass (Fiji)	Poaceae	grass
Sida cordifolia	English: flannelweed, heart-leaf sida	Malvaceae	shrub
Sida glomerata	Other: mautofu (Samoa)	Malvaceae	shrub
Sida linifolia		Malvaceae	herb
Sida paniculata		Malvaceae	shrub
Sida spinosa	English: prickly sida, spiny sida	Malvaceae	herb
Sida urens		Malvaceae	shrub
Sidastrum paniculatum		Malvaceae	shrub
Sigesbeckia orientalis	English: Indian weed, small yellow crown-beard, yellow crown-head; Other: kamika (Cook Islands (Mangaia)), 'a'ami'a (Samoa), kakamika (Tonga, Wallis and Futuna)	Asteraceae	herb
Sisymbrium erysimoides	English: smooth mustard	Brassicaceae	herb
Sisyrinchium micranthum	English: scourweed	Iridaceae	herb

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<i>Solandra maxima</i>	English: golden cup, cup of gold, chalice vine	Solanaceae	vine
<i>Solanum capsicoides</i>	English: cockroach berry, devil's apple, soda apple; Other: poro'iti taratara (Cook Islands); kikania kei, akaaka, akaka (Hawai'i)	Solanaceae	herb
<i>Solanum mammosum</i>	English: nipple fruit	Solanaceae	shrub
<i>Solanum mauritianum</i>	English: bugweed, wild tobacco, tree tobacco; Other: rau 'ava'ava (Cook Islands); pua nana honua (Hawai'i); pula (Tonga)	Solanaceae	shrub
<i>Solanum nigrum</i>	English: black-berry night shade (Australia), black nightshade, poisonberry; Other: polokai (Tonga); magalo, polo (Samoa)	Solanaceae	herb
<i>Solanum seaforthianum</i>	English: potato creeper, Brazilian nightshade	Solanaceae	vine
<i>Solanum viarum</i>	English: tropical soda apple	Solanaceae	herb
<i>Soliva anthemifolia</i>	English: dwarf jojo	Asteraceae	herb
<i>Sonchus arvensis</i>	English: corn sow thistle, field sow thistle, perennial sow thistle	Asteraceae	herb
<i>Sorghum halepense</i>	English: Johnson grass, Aleppo grass, Aleppo milletgrass; Other: kola (Tonga)	Poaceae	grass
<i>Spermacoce confusa</i>	English: river false buttonweed	Rubiaceae	herb
<i>Spermacoce ernstii</i>		Rubiaceae	herb
<i>Spermacoce latifolia</i>		Rubiaceae	herb
<i>Spermacoce mauritiana</i>		Rubiaceae	herb
<i>Spermacoce ocymoides</i>	English: purple-leaved button weed	Rubiaceae	herb
<i>Spermacoce prostrata</i>	English: false buttonweed, prostrate false buttonweed	Rubiaceae	herb
<i>Sphenoclea zeylanica</i>		Sphenocleaceae.	herb
<i>Sporobolus elongatus</i>	English: wiregrass, rat-tail dropseed	Poaceae	grass
<i>Sporobolus pyramidalis</i>		Poaceae	grass
<i>Stachys arvensis</i>	English: staggerweed	Lamiaceae	herb
<i>Stapelia gigantea</i>	English: carrion flower, starfish flower, zulu-giant, giant toad plant	Asclepiadaceae	succulent
<i>Stellaria media</i>	English: chickweed, common chickweed, stickwort	Caryophyllaceae	herb
<i>Stenotaphrum secundatum</i>	English: buffalo grass, St. Augustine grass; Other: 'aki'aki haole, manienie 'aki'aki, manienie 'aki'aki haole, manienie mahikihiki (Hawai'i)	Poaceae	grass
<i>Stictocardia tiliifolia</i>	English: stictocardia, crimson morning-glory; Other: pilikai (Hawai'i); tagamimi, palulu (Samoa)	Convolvulaceae	vine
<i>Struchium sparganophorum</i>		Asteraceae	herb
<i>Syncarpia glomulifera</i>	English: turpentine tree, lustre wood	Myrtaceae	tree
<i>Tabebuia heterophylla</i>	English: pink tecoma, pink trumpet tree, white cedar	Bignoniaceae	tree
<i>Tamarix aphylla</i>	English: Athel tamarisk, athel pine, salt-cedar	Tamaricaceae	shrub
<i>Tamarix gallica</i>	English: saltcedar	Tamaricaceae	tree
<i>Tephrosia noctiflora</i>		Fabaceae	herb
<i>Terminalia myriocarpa</i>	English: hollock, jhalna	Combretaceae	tree
<i>Tetrazygia bicolor</i>	English: Florida clover ash	Melastomataceae	shrub/tree
<i>Teucrium vesicarium</i>		Lamiaceae	herb
<i>Themeda gigantea</i>	English: ulla	Poaceae	grass
<i>Themeda quadrivalvis</i>	English: grader grass, habana grass, kangaroo grass	Poaceae	grass
<i>Thunbergia alata</i>	English: black-eyed susan vine	Acanthaceae	vine
<i>Thunbergia grandiflora</i>	English: Bengal trumpet, blue trumpet vine, clock vine, skyvine, large-flowerd thunbergia; Other: palulu (Samoa)	Acanthaceae	vine
<i>Thunbergia laurifolia</i>	English: purple allamanda, laurel-leaved thunbergia, laurel clock vine	Acanthaceae	vine
<i>Tibouchina herbacea</i>	English: glorybush, cane ti, tibouchina	Melastomataceae	shrub
<i>Tibouchina urvilleana</i>	English: glorybush, lasiandra, princess flower	Melastomataceae	shrub
<i>Timonius timon</i>	English: liberal (Palau)	Rubiaceae	tree

Table 5. Species that are invasive elsewhere in similar ecosystems but are not known to be present on Niue

Scientific Name	Common Names (abridged)	Family	Habit
Tradescantia fluminensis	English: small-leaf spiderwort, spiderwort, wandering jew	Commelinaceae	herb
Trema micranthum	English: capulin, nettle tree	Ulmaceae	tree
Trema orientalis	English: charcoal tree, gunpowder tree; Other: aere (French Polynesia), manglele, magele (Samoa, Tonga)	Ulmaceae	tree
Triadica sebifera	English: Chinese tallow tree, popcorn tree, vegetable tallow, white wax berry, chicken tree, Florida aspen	Euphorbiaceae	tree
Tribulus cistoides	English: puncture vine, caltrop, burrnut, Jamaican feverplant, goat's head; Other: nohu, nohunohu (Hawai'i)	Zygophyllaceae	herb
Tribulus terrestris	English: puncture vine, goat head	Zygophyllaceae	herb
Trichodesma zeylanicum	English: camel bush	Boraginaceae	herb
Tridax procumbens	English: coat buttons, tridax daisy	Asteraceae	herb
Triphasia trifolia	English: limeberry, lemon China	Rutaceae	shrub
Triplaris weigtiana	English: long john, long jack	Polygonaceae	tree
Tripsacum latifolium	English: wideleaf gamagrass	Poaceae	grass
Triumfetta semitriloba	English: Sacramento bur	Tiliaceae	shrub
Turbina corymbosa	English: turbina, Christmas vine, olioli	Convolvulaceae	vine
Turnera subulata	English: white alder	Turneraceae	shrub
Turnera ulmifolia	English: yellow alder, sage rose	Turneraceae	shrub
Ulex europaeus	English: gorse, furze, whin	Fabaceae	shrub
Urochloa brizantha	English: bread grass, palisade grass, palisade signalgrass, signal grass, Surinam grass	Poaceae	grass
Urochloa decumbens	English: basilisk signal grass, signal grass, Surinam grass	Poaceae	grass
Urochloa [=Brachiaria] humidicola	English: creeping signal grass, koronivia grass	Poaceae	grass
Urochloa [=Brachiaria] reptans	English: creeping panic grass, running grass	Poaceae	grass
Verbena litoralis	Other: owi, oi (Hawai'i); ha'uowi, ha'uowi (Hawai'i-Ni'ihau)	Verbenaceae	herb
Verbena rigida	English: veined verbena	Verbenaceae	herb
Vicia sativa ssp. nigra	English: black-pod vetch, common vetch, narrow-leaf vetch, spring vetch	Fabaceae	herb
Vigna radiata	English: green gram, golden gram, mung, mung bean	Fabaceae	herb
Vitex parviflora	English: small-leaved vitex, smallflower chastetree; Other: molave (Hawai'i)	Verbenaceae	shrub/tree
Washingtonia filifera	English: California fan palm, California Washingtonia, cotton palm, desert fan palm, Washington palm	Arecaceae	tree (palm)
Washingtonia robusta	English: Mexican fan palm, Mexican Washington palm, Mexican washingtonia, thread palm	Arecaceae	tree (palm)
Waterhousea floribunda	English: weeping lilly pilly, weeping myrtle	Myrtaceae	tree
Wikstroemia indica	English: tiebush	Thymelacaceae	shrub
Xanthium strumarium	English: Australian burr (Cook Islands), California-bur, cocklebur, noogoora burr; Other: kikania (Hawai'i)	Asteraceae	herb
Yucca aloifolia	English: daggerplant, Spanish-bayonet	Agavaceae	shrub
Zantedeschia aethiopica	English: calla lily, arum lily	Araceae	herb
Zinnia peruviana		Asteraceae	herb
Ziziphus jujuba	English: Chinese jujube, Chinese date, Chinese plum, common jujube	Rhamnaceae	tree
Ziziphus mauritiana	English: Indian jujube, Chinese date, Chinese apple	Rhamnaceae	tree

Appendix 2

Invasive species present in American Samoa, the Cook Islands, Fiji, French Polynesia, Samoa or Tonga but not present on Niue

Species present:

Scientific Name	Present in:					
	American Samoa	Cook Islands	Fiji	French Polynesia	Samoa	Tonga
<i>Abutilon indicum</i>						
<i>Acacia aulacocarpa</i>						
<i>Acacia auriculiformis</i>						
<i>Acacia crassicaarpa</i>						
<i>Acacia curassavica</i>						
<i>Acacia farnesiana</i>						
<i>Acacia mangium</i>						
<i>Acacia mearnsii</i>						
<i>Acalypha alopecuroides</i>						
<i>Acmella uliginosa</i>						
<i>Aeschynomene americana</i>						
<i>Aeschynomene indica</i>						
<i>Agave americana</i>						
<i>Agave sisalana</i>						
<i>Albizia chinensis</i>						
<i>Albizia lebbbeck</i>						
<i>Alstonia macrophylla</i>						
<i>Alternanthera sessilis</i>						
<i>Amaranthus dubius</i>						
<i>Amaranthus hybridus</i>						
<i>Amaranthus interruptus</i>						
<i>Amaranthus spinosus</i>						
<i>Archontophoenix alexandrae</i>						
<i>Ardisia crenata</i>						
<i>Ardisia elliptica</i>						
<i>Argyrea nervosa</i>						
<i>Arundo donax</i>						
<i>Asclepias curassavica</i>						
<i>Asparagus densiflorus</i>						
<i>Averrhoa bilimbi</i>						
<i>Azadirachta indica</i>						
<i>Barleria lupulina</i>						
<i>Bauhinia purpurea</i>						
<i>Bauhinia variegata</i>						
<i>Bidens alba</i>						
<i>Brachiaria eruciformis</i>						
<i>Brugmansia suaveolens</i>						
<i>Bryophyllum delagoense</i>						
<i>Buddleja davidii</i>						
<i>Buddleja madagascariensis</i>						
<i>Caesalpinia decapetala</i>						
<i>Cajanus scarabaeoides</i>						
<i>Calliandra haematocephala</i>						
<i>Calliandra surinamensis</i>						
<i>Callisia fragrans</i>						
<i>Cardiospermum grandiflorum</i>						

Scientific Name	Present in:					
	American Samoa	Cook Islands	Fiji	French Polynesia	Samoa	Tonga
<i>Castilla elastica</i>						
<i>Casuarina cunninghamiana</i>						
<i>Casuarina glauca</i>						
<i>Cecropia obtusifolia</i>						
<i>Cecropia peltata</i>						
<i>Cedrela odorata</i>						
<i>Centratherum punctatum</i>						
<i>Cestrum diurnum</i>						
<i>Chamaesyce thymifolia</i>						
<i>Chenopodium ambrosioides</i>						
<i>Chenopodium murale</i>						
<i>Chloris divaricata</i>						
<i>Chloris radiata</i>						
<i>Chlorophytum comosum</i>						
<i>Chrysobalanus icaco</i>						
<i>Chrysophyllum oliviforme</i>						
<i>Cinchona pubescens</i>						
<i>Cinnamomum camphora</i>						
<i>Cinnamomum verum</i>						
<i>Citharexylum spinosum</i>						
<i>Cleome gynandra</i>						
<i>Clerodendrum japonicum</i>						
<i>Clerodendrum paniculatum</i>						
<i>Clerodendrum quadriloculare</i>						
<i>Clidemia hirta</i>						
<i>Clitoria ternatea</i>						
<i>Coccinia grandis</i>						
<i>Commelina benghalensis</i>						
<i>Conyza sumatrensis</i>						
<i>Corchorus olitorius</i>						
<i>Cordia alliodora</i>						
<i>Cortaderia selloana</i>						
<i>Cosmos caudatus</i>						
<i>Crotalaria incana</i>						
<i>Crotalaria quinquefolia</i>						
<i>Crotalaria retusa</i>						
<i>Crotalaria spectabilis</i>						
<i>Cryptostegia grandiflora</i>						
<i>Cryptostegia madagascariensis</i>						
<i>Cuphea carthagenensis</i>						
<i>Cyathea cooperi</i>						
<i>Cyathula prostrata</i>						
<i>Cymbopogon refractus</i>						
<i>Cyperus cyperinus</i>						
<i>Cyperus difformis</i>						
<i>Cyperus distans</i>						
<i>Cyperus haspan</i>						
<i>Cyperus iria</i>						
<i>Cyperus pilosus</i>						
<i>Cyrtococcum patens</i>						
<i>Cyrtococcum trigonum</i>						
<i>Datura stramonium</i>						
<i>Dentella repens</i>						
<i>Derris elliptica</i>						
<i>Desmanthus virgatus</i>						

Scientific Name	Present in:					
	American Samoa	Cook Islands	Fiji	French Polynesia	Samoa	Tonga
<i>Desmodium gangeticum</i>						
<i>Desmodium heterophyllum</i>						
<i>Desmodium nicaraguense</i>						
<i>Desmodium scorpiurus</i>						
<i>Desmodium tortuosum</i>						
<i>Digitaria bicornis</i>						
<i>Digitaria eriantha</i>						
<i>Digitaria fuscescens</i>						
<i>Digitaria horizontalis</i>						
<i>Digitaria insularis</i>						
<i>Digitaria sanguinalis</i>						
<i>Drymaria cordata</i>						
<i>Duranta erecta</i>						
<i>Echinochloa stagnina</i>						
<i>Elaeocarpus angustifolius</i>						
<i>Eleocharis dulcis</i>						
<i>Eleocharis geniculata</i>						
<i>Elephantopus mollis</i>						
<i>Emilia coccinea</i>						
<i>Emilia fosbergii</i>						
<i>Episcia cupreata</i>						
<i>Eragrostis pilosa</i>						
<i>Eragrostis tenuifolia</i>						
<i>Eragrostis unioloides</i>						
<i>Erechtites valerianifolia</i>						
<i>Erigeron karvinskianus</i>						
<i>Eriobotrya japonica</i>						
<i>Eriochloa procera</i>						
<i>Eryngium foetidum</i>						
<i>Euphorbia peplus</i>						
<i>Ficus benghalensis</i>						
<i>Ficus benjamina</i>						
<i>Ficus macrophylla</i>						
<i>Ficus microcarpa</i>						
<i>Fimbristylis autumnalis</i>						
<i>Fimbristylis littoralis</i>						
<i>Flacourtia rukam</i>						
<i>Flemingia macrophylla</i>						
<i>Flemingia strobilifera</i>						
<i>Funtumia elastica</i>						
<i>Gamochoeta purpurea</i>						
<i>Gmelina arborea</i>						
<i>Gomphocarpus physocarpus</i>						
<i>Grevillea banksii</i>						
<i>Haematoxylum campechianum</i>						
<i>Hedychium coronarium</i>						
<i>Hedychium gardnerianum</i>						
<i>Helianthus argophyllus</i>						
<i>Heliotropium procumbens</i> var. <i>depressum</i>						
<i>Hemigraphis reptans</i>						
<i>Heterocentron subtriplinervium</i>						
<i>Hevea brasiliensis</i>						
<i>Hippobroma longiflora</i>						
<i>Hyparrhenia rufa</i>						

Scientific Name	Present in:					
	American Samoa	Cook Islands	Fiji	French Polynesia	Samoa	Tonga
<i>Hypochoeris radicata</i>						
<i>Hyptis capitata</i>						
<i>Hyptis pectinata</i>						
<i>Impatiens walleriana</i>						
<i>Imperata conferta</i>						
<i>Imperata cylindrica</i>						
<i>Ipomoea alba</i>						
<i>Ipomoea hederifolia</i>						
<i>Ipomoea obscura</i>						
<i>Isachne globosa</i>						
<i>Ischaemum rugosum</i>						
<i>Ischaemum timorense</i>						
<i>Jasminum fluminense</i>						
<i>Jatropha gossypifolia</i>						
<i>Justicia carnea</i>						
<i>Justicia procumbens</i>						
<i>Koelreuteria elegans</i>						
<i>Kyllinga melanosperma</i>						
<i>Kyllinga polyphylla</i>						
<i>Lantana montevidensis</i>						
<i>Leptospermum scoparium</i>						
<i>Leucas lavandulifolia</i>						
<i>Licuala grandis</i>						
<i>Ligustrum spp.</i>						
<i>Limonia acidissima</i>						
<i>Lindernia antipoda</i>						
<i>Lindernia crustacea</i>						
<i>Lindernia nummulariifolia</i>						
<i>Lobelia zeylanica</i>						
<i>Ludwigia hyssopifolia</i>						
<i>Ludwigia octovalvis</i>						
<i>Ludwigia peruviana</i>						
<i>Maesopsis eminii</i>						
<i>Medicago lupulina</i>						
<i>Medicago polymorpha</i>						
<i>Medinilla magnifica</i>						
<i>Melaleuca quinquenervia</i>						
<i>Melicoccus bijugatus</i>						
<i>Melinis repens</i>						
<i>Melochia corchorifolia</i>						
<i>Merremia pacifica</i>						
<i>Merremia umbellata</i>						
<i>Miconia calvescens</i>						
<i>Mikania scandens</i>						
<i>Mitracarpus hirtus</i>						
<i>Montanoa hibiscifolia</i>						
<i>Mucuna pruriens</i>						
<i>Muntingia calabura</i>						
<i>Noronhia emarginata</i>						
<i>Ochna kirkii</i>						
<i>Ochroma pyramidale</i>						
<i>Ocimum gratissimum</i>						
<i>Oldenlandia pumila</i>						
<i>Olea europaea</i>						
<i>Opuntia monacantha</i>						

Scientific Name	Present in:					
	American Samoa	Cook Islands	Fiji	French Polynesia	Samoa	Tonga
<i>Oxalis barrelieri</i>						
<i>Oxalis debilis</i>						
<i>Panicum decompositum</i>						
<i>Paraserianthes lophantha</i>						
<i>Parthenium hysterophorus</i>						
<i>Paspalum fimbriatum</i>						
<i>Paspalum notatum</i>						
<i>Paspalum setaceum</i>						
<i>Paspalum urvillei</i>						
<i>Passiflora ligularis</i>						
<i>Passiflora rubra</i>						
<i>Passiflora suberosa</i>						
<i>Passiflora subpeltata</i>						
<i>Pennisetum clandestinum</i>						
<i>Pennisetum glaucum</i>						
<i>Pennisetum polystachion</i>						
<i>Pennisetum setaceum</i>						
<i>Persicaria glabra</i>						
<i>Phaseolus lunatus</i>						
<i>Phyllanthus debilis</i>						
<i>Phyllanthus tenellus</i>						
<i>Phyllanthus urinaria</i>						
<i>Phyllostachys bissetii</i>						
<i>Phyllostachys nigra</i>						
<i>Phytolacca octandra</i>						
<i>Pimenta dioica</i>						
<i>Pimenta racemosa</i>						
<i>Pinus elliottii</i>						
<i>Piper aduncum</i>						
<i>Piper auritum</i>						
<i>Pithecellobium dulce</i>						
<i>Plantago debilis</i>						
<i>Platycerium bifurcatum</i>						
<i>Pluchea carolinensis</i>						
<i>Pluchea indica</i>						
<i>Polygonum dichotomum</i>						
<i>Psidium cattleianum</i>						
<i>Psidium guineense</i>						
<i>Ptychosperma macarthurii</i>						
<i>Pyrostegia venusta</i>						
<i>Rhodomyrtus tomentosa</i>						
<i>Rivina humilis</i>						
<i>Rubus moluccanus</i>						
<i>Rubus rosifolius</i>						
<i>Ruellia brevifolia</i>						
<i>Ruellia tuberosa</i>						
<i>Rumex crispus</i>						
<i>Saccharum spontaneum</i>						
<i>Sacciolepis indica</i>						
<i>Sanchezia nobilis</i>						
<i>Schefflera actinophylla</i>						
<i>Schefflera arboricola</i>						
<i>Schinus terebinthifolius</i>						
<i>Scoparia dulcis</i>						
<i>Senna hirsuta</i>						

Scientific Name	Present in:					
	American Samoa	Cook Islands	Fiji	French Polynesia	Samoa	Tonga
<i>Senna septemtrionalis</i>						
<i>Senna sophera</i>						
<i>Sesbania grandiflora</i>						
<i>Setaria barbata</i>						
<i>Setaria italica</i>						
<i>Setaria palmifolia</i>						
<i>Setaria pumila</i>						
<i>Sida cordifolia</i>						
<i>Sida glomerata</i>						
<i>Sida paniculata</i>						
<i>Sida spinosa</i>						
<i>Sidastrum paniculatum</i>						
<i>Sigesbeckia orientalis</i>						
<i>Sisyrinchium micranthum</i>						
<i>Solandra maxima</i>						
<i>Solanum capsicoides</i>						
<i>Solanum mammosum</i>						
<i>Solanum mauritianum</i>						
<i>Solanum nigrum</i>						
<i>Sonchus arvensis</i>						
<i>Sorghum halepense</i>						
<i>Spermacoce latifolia</i>						
<i>Spermacoce mauritiana</i>						
<i>Sporobolus elongatus</i>						
<i>Stachys arvensis</i>						
<i>Stenotaphrum secundatum</i>						
<i>Stictocardia tiliifolia</i>						
<i>Struchium sparganophorum</i>						
<i>Syncarpia glomulifera</i>						
<i>Tabebuia heterophylla</i>						
<i>Tephrosia noctiflora</i>						
<i>Teucrium vesicarium</i>						
<i>Themeda quadrivalvis</i>						
<i>Thunbergia alata</i>						
<i>Thunbergia grandiflora</i>						
<i>Thunbergia laurifolia</i>						
<i>Tibouchina urvilleana</i>						
<i>Trema orientalis</i>						
<i>Tribulus cistoides</i>						
<i>Tribulus terrestris</i>						
<i>Trichodesma zeylanicum</i>						
<i>Tridax procumbens</i>						
<i>Triphasia trifolia</i>						
<i>Triplaris weigeltiana</i>						
<i>Triumfetta semitriloba</i>						
<i>Turnera ulmifolia</i>						
<i>Urochloa brizantha</i>						
<i>Urochloa decumbens</i>						
<i>Urochloa humidicola</i>						
<i>Urochloa reptans</i>						
<i>Vigna radiata</i>						
<i>Washingtonia robusta</i>						
<i>Waterhousea floribunda</i>						
<i>Xanthium strumarium</i>						
<i>Yucca aloifolia</i>						

Scientific Name	Present in:					
	American Samoa	Cook Islands	Fiji	French Polynesia	Samoa	Tonga
<i>Zantedeschia aethiopica</i>						
<i>Zinnia peruviana</i>						
<i>Ziziphus jujuba</i>						
<i>Ziziphus mauritiana</i>						

Presence in American Samoa, Cook Islands, Samoa and Tonga determined by survey, Fiji and French Polynesia as reported in the literature.

Appendix 3

Scientific name synonyms

This table lists commonly used other Latin names for the listed invasive species. Names sometimes change because better information is available on the taxonomy of a species or precedence is given to an earlier author.

Scientific name synonyms

Often-used other Latin names	Scientific name (+Family)
<i>Acacia lebbek</i> (L.) Willd.,	<i>Albizia lebbek</i> (Fabaceae)
<i>Acalypha boehmerioides</i> Miq.	<i>Acalypha lanceolata</i> (Euphorbiaceae)
<i>Acanthocereus pentagonus</i> (L.) Britton & Rose	<i>Acanthocereus tetragonus</i> (Cactaceae)
<i>Achyranthes canescens</i> R. Br.	<i>Achyranthes aspera</i> (Amaranthaceae)
<i>Adenanthera falcataria</i> L.,	<i>Falcataria moluccana</i> (Fabaceae)
<i>Adiantum cuneatum</i> Langsd. & Fischer	<i>Adiantum raddianum</i> (Pteridaceae)
<i>Albizia falcataria</i> (L.) Fosb.	<i>Falcataria moluccana</i> (Fabaceae)
<i>Albizia lophantha</i> (Willd.), Benth.	<i>Paraserianthes lophantha</i> (Fabaceae)
<i>Albizia saman</i> (Jacq.) F. v. Muell.	<i>Samanea saman</i> (Fabaceae)
<i>Albizia stipulata</i> (Roxb.) Boivin	<i>Albizia chinensis</i> (Fabaceae)
<i>Alternanthera nodiflora</i> R. Br.	<i>Alternanthera sessilis</i> (Amaranthaceae)
<i>Amaranthus lividus</i> L.	<i>Amaranthus blitum</i> (Amaranthaceae)
<i>Andropogon bladhii</i> Retz.	<i>Bothriochloa bladhii</i> (Poaceae)
<i>Andropogon condensatus</i> Kunth	<i>Schizachyrium condensatum</i> (Poaceae)
<i>Andropogon halepensis</i> (L.) Brot.	<i>Sorghum halepense</i> (Poaceae)
<i>Andropogon marcourus</i> Michx.	<i>Andropogon glomeratus</i> (Poaceae)
<i>Apium leptophyllum</i> (Pers.) F. Muell. ex Benth.	<i>Ciclospermum leptophyllum</i> (Apiaceae)
<i>Ardisia humilis</i> Vahl	<i>Ardisia elliptica</i> (Myrsinaceae)
<i>Aristolochia elegans</i> Masters	<i>Aristolochia littoralis</i> (Aristolochiaceae)
<i>Asclepias physocarpa</i> (E. Mey.) Schlechter	<i>Gomphocarpus physocarpus</i> (Asclepiadaceae)
<i>Asclepias procera</i> Aiton	<i>Calotropis procera</i> (Asclepiadaceae)
<i>Asparagus sprengeri</i> Reg.	<i>Asparagus densiflorus</i> (Liliaceae)
<i>Axonopus affinis</i> Chase	<i>Axonopus fissifolius</i> (Poaceae)
<i>Blechum brownei</i> Juss.,	<i>Blechum pyramidatum</i> (Acanthaceae)
<i>Borreria laevicaulis</i> Ridley	<i>Spermacoce ocymoides</i> (Rubiaceae)
<i>Borreria ovalifolia</i> M. Martens & Galeotti?	<i>Spermacoce ernstii</i> (Rubiaceae)
<i>Borreria prostrata</i> (Aubl.) Miq.	<i>Spermacoce prostrata</i> (Rubiaceae)
<i>Borreria repens</i> DC.	<i>Spermacoce mauritiana</i> (Rubiaceae)
<i>Boussingaultia cordifolia</i> Ten.	<i>Anredera cordifolia</i> (Basellaceae)
<i>Brachiaria brizantha</i> (Hochst. ex A. Rich.) Stapf,	<i>Urochloa brizantha</i> (Poaceae)
<i>Brachiaria decumbens</i> Stapf	<i>Urochloa decumbens</i> (Poaceae)
<i>Brachiaria humidicola</i> (Rendle) Schweickhardt	<i>Urochloa humidicola</i> (Poaceae)
<i>Brachiaria mutica</i> (Forssk.) Stapf,	<i>Urochloa mutica</i> (Poaceae)
<i>Brachiaria paspaloides</i> (Presl) Hubbard	<i>Urochloa glumaris</i> (Poaceae)
<i>Brachiaria reptans</i> (L.) C. A. Gardner & C. E. Hubb.	<i>Urochloa reptans</i> (Poaceae)
<i>Brachiaria subquadripara</i> (Trin.) Hitchc.	<i>Urochloa subquadripara</i> (Poaceae)
<i>Brassaia actinophylla</i> Endlicher	<i>Schefflera actinophylla</i> (Araliaceae)
<i>Breynia nivosa</i> (W. Bull.) Small	<i>Breynia disticha</i> (Euphorbiaceae)
<i>Bryophyllum verticillatum</i> (Scott-Elliott) A. Berger	<i>Bryophyllum delagoense</i> (Crassulaceae)
<i>Cascabela thevetia</i> (L.) Lippold	<i>Thevetia peruviana</i> (Apocynaceae)
<i>Cassia alata</i> L.	<i>Senna alata</i> (Fabaceae)
<i>Cassia bicapsularis</i> L.	<i>Senna bicapsularis</i> (Fabaceae)
<i>Cassia hirsuta</i> L.	<i>Senna hirsuta</i> (Fabaceae)
<i>Cassia lechenaultiana</i> DC.	<i>Chamaecrista nictitans</i> (Fabaceae)
<i>Cassia mimosoides</i> L.	<i>Chamaecrista mimosoides</i> (Fabaceae)
<i>Cassia obtusifolia</i> L.	<i>Senna obtusifolia</i> (Fabaceae)
<i>Cassia occidentalis</i> L.	<i>Senna occidentalis</i> (Fabaceae)
<i>Cassia septemtrionalis</i> Viv., <i>Cassia laevigata</i> Willd.	<i>Senna septemtrionalis</i> (Fabaceae)
<i>Cassia siamea</i> Lam.	<i>Senna siamea</i> (Fabaceae)
<i>Cassia sophera</i> L.	<i>Senna sophera</i> (Fabaceae)
<i>Cassia tomentosa</i> L. f.	<i>Senna multiglandulosa</i> (Fabaceae)
<i>Cassia tora</i> L.	<i>Senna tora</i> (Fabaceae)
<i>Castilloa elastica</i> Cerv.	<i>Castilla elastica</i> (Moraceae)
<i>Casuarina littorea</i> Rumph.	<i>Casuarina equisetifolia</i> (Casuarinaceae)

Scientific name synonyms

Often-used other Latin names	Scientific name (+Family)
<i>Cecropia palmata</i> Willd.?	<i>Cecropia obtusifolia</i> (Cecropiaceae)
<i>Cedrela australis</i> F. v. Muell.	<i>Toona ciliata</i> (Meliaceae)
<i>Centrosema pubescens</i> Benth.	<i>Centrosema molle</i> (Fabaceae)
<i>Chloris inflata</i> Link	<i>Chloris barbata</i> (Poaceae)
<i>Chloris petraea</i> Swartz	<i>Eustachys petraea</i> (Poaceae)
<i>Chukrasia velutina</i> M. Roem.	<i>Chukrasia tabularis</i> (Meliaceae)
<i>Cinchona succirubra</i> Pavon ex Klotzsch	<i>Cinchona pubescens</i> (Rubiaceae)
<i>Cinnamomum zeylanicum</i> Bl.	<i>Cinnamomum verum</i> (Lauraceae)
<i>Clerodendrum philippinum</i> Schauer	<i>Clerodendrum chinense</i> (Verbenaceae)
<i>Clerodendrum speciosissimum</i> van Geert ex Morren	<i>Clerodendrum buchananii</i> var. <i>fallax</i> (Verbenaceae)
<i>Clidemia marginata</i> (Desr.) DC.	<i>Ossaea marginata</i> (Melastomataceae)
<i>Coleus amboinicus</i> Lour.	<i>Plectranthus amboinicus</i> (Lamiaceae)
<i>Coleus blumei</i> Benth.	<i>Solenostemon scutellarioides</i> (Lamiaceae)
<i>Coleus scutellarioides</i> (L.) Benth.	<i>Solenostemon scutellarioides</i> (Lamiaceae)
<i>Cordia macrostachya</i> (Jacquin) Roemer & Schultes	<i>Cordia curassavica</i> (Boraginaceae)
<i>Costus sericeus</i> Bl.	<i>Costus speciosus</i> (Costaceae)
<i>Crotalaria anagyroides</i> Kunth	<i>Crotalaria micans</i> (Fabaceae)
<i>Crotalaria angulosa</i> Lam.	<i>Crotalaria verrucosa</i> (Fabaceae)
<i>Crotalaria mucronata</i> Desv.	<i>Crotalaria pallida</i> (Fabaceae)
<i>Cyperus alternifolius</i> L. subsp. <i>flabelliformis</i> Kuk.	<i>Cyperus involucratus</i> (Cyperaceae)
<i>Cyperus aromaticus</i> (Ridl.) Mattf. & Kukenth.	<i>Kyllinga polyphylla</i> (Cyperaceae)
<i>Cyperus brevifolius</i> (Rottb.) Endl. ex Hassk.	<i>Kyllinga brevifolia</i> (Cyperaceae)
<i>Cyperus kyllingia</i> Endl.	<i>Kyllinga nemoralis</i> (Cyperaceae)
<i>Datura suaveolens</i> Humb. & Bonpl. ex Willd.)	<i>Brugmansia suaveolens</i> (Solanaceae)
<i>Desmodium canum</i> Schinz & Thell., nom. illeg.	<i>Desmodium incanum</i> (Fabaceae)
<i>Desmodium purpureum</i> (Miller) Fawcett & Rendle	<i>Desmodium tortuosum</i> (Fabaceae)
<i>Digitaria decumbens</i> Stent, <i>Digitaria pentzii</i> Stent	<i>Digitaria eriantha</i> (Poaceae)
<i>Dolichos lablab</i> L.	<i>Lablab purpureus</i> (Fabaceae)
<i>Dolichos phaseoloides</i> Roxb.	<i>Pueraria phaseoloides</i> (Fabaceae)
<i>Dolichos pruriens</i> L.	<i>Mucuna pruriens</i> (Fabaceae)
<i>Dolichos purpureus</i> L.	<i>Lablab purpureus</i> (Fabaceae)
<i>Duranta repens</i> L.	<i>Duranta erecta</i> (Verbenaceae)
<i>Elaeocarpus grandis</i> F. Muell.	<i>Elaeocarpus angustifolius</i> (Elaeocarpaceae)
<i>Elephantopus scaber</i> L.	<i>Elephantopus mollis</i> (Asteraceae)
<i>Elephantopus spicatus</i> Juss. ex Aubl.	<i>Pseudelephantopus spicatus</i> (Asteraceae)
<i>Eleusine aegyptiaca</i> (L.) Desf.	<i>Dactyloctenium aegyptium</i> (Poaceae)
<i>Eragrostis multicaulis</i> Steud.	<i>Eragrostis pilosa</i> (Poaceae)
<i>Eragrostis tenella</i> (L.) P. Beauv. ex Roem. & Schult.	<i>Eragrostis amabilis</i> (Poaceae)
<i>Eugenia cumini</i> (L.) Druce	<i>Syzygium cumini</i> (Myrtaceae)
<i>Eugenia jambos</i> L.	<i>Syzygium jambos</i> (Myrtaceae)
<i>Eupatorium catarium</i> Veldk.	<i>Praxelis clematidea</i> (Asteraceae)
<i>Eupatorium inulaefolium</i> H.B.K.	<i>Austroeupatorium inulaefolium</i> (Asteraceae)
<i>Eupatorium odoratum</i> L.	<i>Chromolaena odorata</i> (Asteraceae)
<i>Eupatorium riparium</i> Regel	<i>Ageratina riparia</i> (Asteraceae)
<i>Euphorbia glomifera</i> Millsp..	<i>Chamaesyce hypericifolia</i> (Euphorbiaceae)
<i>Euphorbia hirta</i> L.	<i>Chamaesyce hirta</i> (Euphorbiaceae)
<i>Euphorbia prostrata</i> Aiton	<i>Chamaesyce prostrata</i> (Euphorbiaceae)
<i>Euphorbia thymifolia</i> L.	<i>Chamaesyce thymifolia</i> (Euphorbiaceae)
<i>Flacourtia ramontchii</i> L'Hér.	<i>Flacourtia indica</i> (Flacourtiaceae)
<i>Gliricidia maculata</i> (Kunth) Walp.	<i>Gliricidia sepium</i> (Fabaceae)
<i>Glycine wightii</i> (Wight & Arnott.) Verdc.	<i>Neonotonia wightii</i> (Fabaceae)
<i>Hedyotis corymbosa</i> (L.) Lam.	<i>Oldenlandia corymbosa</i> (Rubiaceae)
<i>Hedyotis pumila</i> L. f.	<i>Oldenlandia pumila</i> (Rubiaceae)
<i>Hibiscus abelmoschus</i> L.	<i>Abelmoschus moschatus</i> (Malvaceae)
<i>Holcus bicolor</i> L.	<i>Sorghum bicolor</i> (Poaceae)
<i>Ipomoea fistulosa</i> Mart. ex Choisy	<i>Ipomoea carnea</i> subsp. <i>fistulosa</i> (Convolvulaceae)
<i>Ipomoea macrantha</i> Roem. & Schult.,	<i>Ipomoea violacea</i> (Convolvulaceae)
<i>Ipomoea tuba</i> (Schlechtend.) G. Don	<i>Ipomoea violacea</i> (Convolvulaceae)
<i>Ipomoea tuberosa</i> L.	<i>Merremia tuberosa</i> (Convolvulaceae)
<i>Jacobinia carnea</i> Hooker	<i>Justicia carnea</i> (Acanthaceae)
<i>Jussiaea suffruticosa</i> L.	<i>Ludwigia octovalvis</i> (Onagraceae)
<i>Kalanchoë delagoense</i> Eckl. & Zeyh.	<i>Bryophyllum delagoense</i> (Crassulaceae)
<i>Kalanchoë pinnata</i> Pers.	<i>Bryophyllum pinnatum</i> (Crassulaceae)
<i>Kalanchoë tubiflora</i> (Harv.) Raym.-Hamet	<i>Bryophyllum delagoense</i> (Crassulaceae)
<i>Kunzea scoparium</i>	<i>Leptospermum scoparium</i> (Myrtaceae)
<i>Laportea interrupta</i> (L.) Chew	<i>Fleurya interrupta</i> (Urticaceae)
<i>Leonurus sibiricus</i> L.	<i>Leonurus japonicus</i> (Lamiaceae)

Scientific name synonyms

Often-used other Latin names	Scientific name (+Family)
<i>Leptospermum ericoides</i> A. Rich.	<i>Kunzea ericoides</i> (Myrtaceae)
<i>Leptospermum flavescens</i> Sm.	<i>Leptospermum polygalifolium</i> (Myrtaceae)
<i>Leucaena glauca</i> (L. ex Willd.) Benth.	<i>Leucaena leucocephala</i> (Fabaceae)
<i>Luffa cylindrica</i> (L.) M. Roemer	<i>Luffa aegyptiaca</i> (Cucurbitaceae)
<i>Lycopersicon lycopersicum</i> (L.) Karst.	<i>Lycopersicon esculentum</i> (Solanaceae)
<i>Malva americana</i> L.	<i>Malvastrum americanum</i> (Malvaceae)
<i>Malva coromandeliana</i> L.	<i>Malvastrum coromandelianum</i> (Malvaceae)
<i>Merremia magnifica</i> Triana	<i>Miconia calvenscens</i> (Melastomataceae)
<i>Mimosa dulcis</i> Roxb.	<i>Pithecellobium dulce</i> (Fabaceae)
<i>Mimosa invisita</i> Mart., nom. illeg.	<i>Mimosa diplotricha</i> (Fabaceae)
<i>Mimosa lebeck</i> L.	<i>Albizia lebeck</i> (Fabaceae)
<i>Mimosa sinuata</i> Lour.	<i>Acacia sinuata</i> (Fabaceae)
<i>Moghania macrophylla</i> (Willd.) Kuntze	<i>Flemingia macrophylla</i> (Fabaceae)
<i>Moghania strobilifera</i> (L.) J.St.-Hil.	<i>Flemingia strobilifera</i> (Fabaceae)
<i>Myrica cerifera</i> L.	<i>Morella cerifera</i> (Myricaceae)
<i>Myrica faya</i> Ait.	<i>Morella faya</i> (Myricaceae)
<i>Notonia wightii</i> Wight & Arnott.	<i>Neonotonia wightii</i> (Fabaceae)
<i>Ochna thomasiana</i> Engl. & Gilg.	<i>Ochna kirkii</i> (Ochnaceae)
<i>Ochroma lagopus</i> Sw.	<i>Ochroma pyramidale</i> (Bombacaceae)
<i>Odontonema strictum</i> (Nees) O. Kuntze	<i>Odontonema tubaeforme</i> (Acanthaceae)
<i>Oldenlandia repens</i> L.	<i>Dentella repens</i> (Rubiaceae)
<i>Oplismenus setarius</i> (Lam.) Roem. & Schult.	<i>Oplismenus hirtellus</i> (Poaceae)
<i>Orthosiphon stamineus</i> Benth.	<i>Orthosiphon aristatus</i> (Lamiaceae)
<i>Oxalis corymbosa</i> DC.	<i>Oxalis debilis</i> (Oxalidaceae)
<i>Paederia scandens</i> (Lour.) Merr.	<i>Paederia foetida</i> (Rubiaceae)
<i>Panicum compositum</i> L.	<i>Oplismenus compositum</i> (Poaceae)
<i>Panicum eruciforme</i> Sm.	<i>Brachiaria eruciformis</i> (Poaceae)
<i>Paraserianthes falcataria</i> (L.) I. Nielsen	<i>Falcataria moluccana</i> (Fabaceae)
<i>Paspalum cartilagineum</i> Presl.?	<i>Paspalum scrobiculatum</i> (Poaceae)
<i>Pennisetum setosum</i> (Sw.) L. Rich.	<i>Pennisetum polystachion</i> (Poaceae)
<i>Phaseolus atropurpureus</i> DC.	<i>Macroptilium atropurpureum</i> (Fabaceae)
<i>Phaseolus lathyroides</i> L.	<i>Macroptilium lathyroides</i> (Fabaceae)
<i>Plectranthus scutellarioides</i> (L.) R. Br.	<i>Solenostemon scutellarioides</i> (Lamiaceae)
<i>Poinciana regia</i> Bojer ex Hook.	<i>Delonix regia</i> (Fabaceae)
<i>Pongamia elliptica</i> Wallich	<i>Derris elliptica</i> (Fabaceae)
<i>Rhamnus micrantha</i> L.	<i>Trema micranthum</i> (Ulmaceae)
<i>Rhoeo discolor</i> Hance ex Walp	<i>Tradescantia spathacea</i> (Commelinaceae)
<i>Rhoeo spathacea</i> (Sw.) Stearn,	<i>Tradescantia spathacea</i> (Commelinaceae)
<i>Rhynchelytrum repens</i> (Willd.) C.E. Hubbard	<i>Melinis repens</i> (Poaceae)
<i>Rivina laevis</i> L.	<i>Rivina humilis</i> (Phytolaccaceae)
<i>Salvinia auriculata</i> Aubl.	<i>Salvinia molesta</i> (Salviniaceae)
<i>Sapium sebiferum</i> (L.) Roxb.	<i>Triadica sebifera</i> (Euphorbiaceae)
<i>Scindapsus aureus</i> (Linden ex André) Engl.	<i>Epipremnum pinnatum</i> cv. Aureum (Araceae)
<i>Senecio mikanioides</i> Otto ex Walp.	<i>Delairea odorata</i> (Asteraceae)
<i>Setaria glauca</i> (L.) P. Beauv.	<i>Pennisetum glaucum</i> (Poaceae)
<i>Setaria gracilis</i> Kunth,	<i>Setaria parviflora</i> (Poaceae)
<i>Setaria pallide-fusca</i> (Stapf & C. E. Hubb.) B. K. Simon)	<i>Setaria pumila</i> (Poaceae)
<i>Sida grandifolia</i> Willd.	<i>Abutilon grandifolium</i> (Malvaceae)
<i>Sida indica</i> L.	<i>Abutilon indicum</i> (Malvaceae)
<i>Sida paniculata</i> L.	<i>Sidastrum paniculatum</i> (Malvaceae)
<i>Sorghum verticilliflorum</i> (Steudel) Stapf	<i>Sorghum arundinaceum</i> (Poaceae)
<i>Spermacoce verticillata</i> L.	<i>Borreria verticillata</i> (Rubiaceae)
<i>Sphaeropteris cooperi</i> (Hook. ex F. Muell.) R. M. Tryon	<i>Cyathea cooperi</i> (Cyatheaceae)
<i>Spilanthes ibadicensis</i> A. H. Moore	<i>Acmella uliginosa</i> (Asteraceae)
<i>Spilanthes uliginosa</i> Sw.	<i>Acmella uliginosa</i> (Asteraceae)
<i>Sporobolus diander</i> (Retz.) Beauv.,	<i>Sporobolus indicus</i> (Poaceae)?
<i>Sporobolus fertilis</i> (Steud.) Clayton	<i>Sporobolus indicus</i> (Poaceae)?
<i>Stachytarpheta urticifolia</i> Sims	<i>Stachytarpheta cayennensis</i> (Verbenaceae)
<i>Stenolobium stans</i> Seem.	<i>Tecoma stans</i> (Bignoniaceae)
<i>Stizolobium pruriens</i> (L.) Medicus.	<i>Mucuna pruriens</i> (Fabaceae)
<i>Synedrella vialis</i> (Less.) A. Gray	<i>Calyptocarpus vialis</i> (Asteraceae)
<i>Syzygium floribundum</i> F. Muell.	<i>Waterhousea floribunda</i> (Myrtaceae)
<i>Terminalia erecta</i> (L.) Baill.	<i>Conocarpus erectus</i> (Combretaceae)
<i>Teucrium inflatum</i> Sw.	<i>Teucrium vesicarium</i> (Lamiaceae)
<i>Thelechitonina trilobata</i> (L.) H. Rob. & Cautrec.	<i>Sphagneticola trilobata</i> (L.) Pruski, (Asteraceae)
<i>Toona australis</i> (F. v. Muell.) Harms	<i>Toona ciliata</i> (Meliaceae)
<i>Trema cannabina</i> Lour.	<i>Trema orientalis</i> (Ulmaceae)

Scientific name synonyms

Often-used other Latin names	Scientific name (+Family)
<i>Triumfetta bartramia</i> L.	Triumfetta rhomboidea (Tiliaceae)
<i>Triplaris surinamensis</i> Cham.	Triplaris weigeltiana (Polygonaceae)
<i>Turnera ovata</i> Bello	Piriqueta ovata (Turneraceae)
<i>Urena sinuata</i> L.	Urena lobata (Malvaceae)
<i>Vetiveria zizanioides</i> (L.) Nash	Chrysopogon zizanioides (Poaceae)
<i>Vinca rosea</i> L.	Catharanthus roseus (Apocynaceae)
<i>Waltheria americana</i> L.	Waltheria indica (Sterculiaceae)
<i>Wedelia trilobata</i>	Sphagneticola trilobata (L.) Pruski, (Asteraceae)
<i>Zebrina pendula</i> Schnitzl.	Tradescantia zebrina (Commelinaceae)

Appendix 4

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