

Falcataria moluccana  [简体中文](#) [正體中文](#)

System: Terrestrial

Kingdom	Phylum	Class	Order	Family
Plantae	Magnoliophyta	Magnoliopsida	Fabales	Fabaceae

Common name tamaligi paepae (English, Samoa), falcata (English), parasiente (Portuguese), ukall ra ngebard (Palauan), tuhke kerosene (English), mara (Portuguese), tamaligi, tamalini (Samoan), albizzia (English), tuhkehr karisihn (Pohnpeian), tamaligi palagi (English, American Samoa), tuhke kerosin (Pohnpeian), peacock plume (English), sau (English), malacana (English), tamaligi uliuli (English, Samoa), 'arapitia (Cook Islands), albízia (Portuguese)

Synonym *Adenantha falcataria*, L.
Albizia falcataria, (L.) Fosb.
Albizia moluccana, Miq.
Paraserianthes falcataria, (L.) I. Nielsen
Albizia falcata, auct. pl.
Albizia moluccana, F.A. Miquel
Paraserianthes falcataria, subsp. *falcataria*

Similar species

Summary *Falcataria moluccana* is an invasive, nitrogen-fixing tree species. It has been introduced to the Seychelles, Mauritius, Reunion and many Pacific islands; including, most notably, Hawaii where it has become a problematic invader. Its rapid growth habit allows it to outcompete slow-growing native trees, and its abundant, high-quality litter alters nutrient dynamics in the soil. This affects decomposition rates and microorganism and invertebrate community composition. Ecosystem processes may be altered in both terrestrial and aquatic environments where *F. moluccana* invades riparian areas.



[view this species on IUCN Red List](#)

Species Description

"**Trees** up to 40 m tall, bark white, gray or greenish, smooth or slightly warty, young parts densely reddish brown tomentose or puberulent. **Leaves** with a large nectary below the lowermost pair of pinnae and smaller ones between or below most pairs of pinnae, pinnae (4-) 8-15 pairs, leaflets 15-25 pairs per pinna, obliquely elliptic, falcate, 10-20 mm long, 3-6 mm wide, midrib strongly excentric near 1 of the margins. Flowers in panicles ca 20 cm in diameter, often with 2 serial branches from 1 bract scar; calyx 1-1.5 mm long, silky pubescent, the teeth 0.5 mm long; corolla cream or greenish yellow, 3-4.5 mm long (excl. stamens); stamens 10-17 mm long. Pods 9-12 cm long, 1.5-2.5 cm wide, densely pubescent or glabrous, with a narrow, longitudinal wing along the upper suture. Seeds transversely arranged, ellipsoid, 5-7 mm long, 2.5-3.5 mm wide, laterally flattened, with a pleurogram ca 3 mm long and 1.5 mm wide" (Wagner *et al.*, 1999).

Lifecycle Stages

Produces abundant seeds contained in lightweight pods and are dispersed by wind (Little & Skolmen, 1989 in Starr *et al.*, 2003).



GLOBAL INVASIVE SPECIES DATABASE

FULL ACCOUNT FOR: *Falcataria moluccana*

Uses

Falcataria moluccana was originally introduced to Hawaii in 1917 from North Borneo and Java. Since then this tree has been planted in the hundreds of thousands. It is used for reforestation and as an ornamental due to its aesthetic looks, including attractive gray bark and feather-like flowers (Wagner et al. 1999; Starr et al. 2003). Plantations of *F. moluccana* have also been established in Hawaii short-rotation forestry applications, due to its fast growth and nitrogen fixation capacity (Binkley & Giardina, 1997 in Hughes & Denslow, 2005). The wood is used for a variety of purposes including canoe building and furniture making (Starr et al. 2003).

Japanese farmers in Palau planted *F. moluccana* for use as a shade tree for cacao, coffee and tea plantations (Endress, 2002).

More recently *F. moluccana* has been approved for use as a biofuel, to generate electricity on the Hawaiian island of Kauai (Eagle, 2008; Chimera et al., 2010).

Habitat Description

Falcataria moluccana grows well on a variety of soil types, including degraded sites and acidic or nutrient poor soils (Hughes & Denslow, 2005). It is able to grow on poor soils due to its nitrogen-fixing roots (Kitalong, 2008). In Hawaii *F. moluccana* often establishes on young lava flows with minimal soil development (Mascaro et al. 2009). In Hawaii *F. moluccana* spreads rapidly in areas below 305 m elevation with 2,032-3,810 mm annual rainfall (Little & Skolmen, 1989 in Starr et al., 2003).

General Impacts

The exotic nitrogen-fixing tree *Falcataria moluccana* dramatically alters forest structure and litter inputs in forests it invades. In rare wet lowland forest on young lava flows in Hawaii, *F. moluccana* is a particular problem as it grows rapidly, reducing light-levels and outcompeting native slow-growing *Metrosideros polymorpha*. Enhanced leaf litter quality and quantity of *F. moluccana* compared to native species causes increases in soil nutrient levels, decomposition rates, microorganism community composition and soil invertebrates. Ecosystem processes are altered in both terrestrial and aquatic environments where *F. moluccana* invaded riparian areas (Hughes & Denslow, 2005; Allison et al., 2006; Atwood et al., 2010).

For a detailed account of the impacts of *F. moluccana* please read [Impacts of Falcataria moluccana](#).

Management Info

Preventative measures: A [Risk Assessment of *Falcataria moluccana*](#) produced a high score of 8 and a recommendation of: "reject the plant for import (Australia) or species likely to be of high risk (Pacific)." (PIER, 2005). This species is also listed on the Hawaii state Noxious Weed List (Ostertag *et al.*, 2009).

Cultural control: The planting of *F. moluccana* is discouraged in many regions; both where it is a known invasive and where further research is required to determine its impact (e.g Space & Flynn, 2000b; Space *et al.*, 2003; Space *et al.*, 2004; Space *et al.*, 2009). In Hawaii, Starr *et al.* (2003) recommend asking public not to spread trees and to instead plant alternatives such as native koa (*Acacia koa*).

Manual control: Girdling (ring-barking) of *F. moluccana* in the sapling stage may be a cost-effective control measure (Mueller-Dombois, 2008). It is relatively easy to achieve and tends to be successful (Gerlach, 2004). Uprooting seedlings and saplings, followed by chemical control can also be effective (Meyer, 2008). *F. moluccana* is also reportedly susceptible to being killed by root damage by heavy equipment (Motooka *et al.*, 2003).

Chemical control: *F. moluccana* is very susceptible to hormone-type herbicides. 2,4-D and glyphosate cause severe injury, while dicamba and triclopyr are even more effective. Herbicides may be applied by injecting into the trunks of trees, or as a spray on the trunk after debarking (Motooka *et al.*, 2003; Meyer, 2008).

Integrated management: Trees can be removed by hand or using saws, and stumps treated with a triclopyr-based herbicide to prevent resprouting (Ostertag *et al.*, 2009). Ostertag *et al.*, (2009) carried out removal experiments in Hawaii to determine native species' response to the removal of all invasive trees and shrubs from plots. While there were major environmental changes in removal plots, native species growth and litterfall productivity did not change over three years, confirming the slow growth response capabilities of Hawaiian trees. However with continued removal of invasive species, it may be possible to alter the seedbank enough to encourage native regeneration (Cordell *et al.*, 2009). Cordell *et al.* (2009) recommend non-native species removal to encourage natural regeneration, with supplemental native species planting as an additional strategy. Follow-up removal is essential to success (Cordell *et al.*, 2009). In reality, treating and sustaining such removal plots to control invasive species is highly labour intensive, and may not be feasible at a regional scale (Ostertag *et al.*, 2008).

Other: Recently *F. moluccana* has been approved for use as a biofuel, to generate electricity on the Hawaiian island of Kauai (Eagle, 2008; Chimera *et al.*, 2010). The president of the project states that "the project will reduce the overall amount of albizia on island and positively benefit the community". However in order to fulfill the wood requirements, an additional 2000 acres of *F. moluccana* would be necessary. However Chimera *et al.* (2010) list a number of reasons why this is unlikely to result in effective control of the invasive tree, and will most likely lead to it being more widely planted and greater spread.

Pathway

Spread long distances by humans who plant the tree for landscaping, forestry or other purposes (Little & Skolmen, 1989 in Starr *et al.*, 2003). Grown as an ornamental garden plant due to its attractive flowers. Spread long distances by humans who plant the tree for landscaping, forestry or other purposes (Little & Skolmen, 1989 in Starr *et al.*, 2003).

Principal source:

Compiler: Comité français de l'IUCN (IUCN French Committee) & IUCN SSC Invasive Species Specialist Group (ISSG)

Review:

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ALIEN RANGE

[2] AMERICAN SAMOA

[1] BANGLADESH



GLOBAL INVASIVE SPECIES DATABASE

FULL ACCOUNT FOR: *Falcataria moluccana*

- | | |
|------------------------------|-------------------------------------|
| [1] CAROLINE ISLANDS | [1] CHILE |
| [6] COOK ISLANDS | [3] FIJI |
| [17] FRENCH POLYNESIA | [1] GUAM |
| [1] MAURITIUS | [5] MICRONESIA, FEDERATED STATES OF |
| [2] NEW CALEDONIA | [1] NIUE |
| [2] NORTHERN MARIANA ISLANDS | [3] PALAU |
| [1] PAPUA NEW GUINEA | [1] REUNION |
| [3] SAMOA | [3] SEYCHELLES |
| [1] SINGAPORE | [3] TONGA |
| [7] UNITED STATES | [1] WALLIS AND FUTUNA |

BIBLIOGRAPHY

57 references found for *Falcataria moluccana*

Management information

Chimera G. Charles, Christopher E Buddenhagen & Patti M Clifford, 2010. Biofuels: the risks and dangers of introducing invasive species *Biofuels* (2010) 1(5), 785-796

Hanson D. Eric, 2004. ASSIST: Development of the American Samoa Selected Invasive Species Task Force. *Weed Technology*, 18(sp1):1334-1337. 2004.

[Kitalong, Ann Hillmann, 2008. Forests of Palau: a long-term perspective. *Micronesica* 40\(1/2\): 9-31, 2008](#)

Summary: Available from: http://www.uog.edu/up/micronesica/dynamicdata/assetmanager/images/vol40/2_kitalong.pdf [Accessed 21 March 2011]

[Meyer, Jean-Yves, 2008. Rapport de mission d'expertise a Rapa Nui du 02 au 11 Juin 2008: Plan d'action strategique pour lutter contre les plantes introduites envahissantes sur Rapa Nui \(le 10 de piques\) \[Strategic action plan to control invasive alien plants on Rapa Nui \(Easter Island\) \[unpublished report\]. Direction de la Recherche, Ministere de l'Education, l'Enseignement superieur et la Recherche, B.P. 20981 Papeete, Tahiti, Polynésie française. 62 pp.](#)

Summary: Available from: http://www.li-an.fr/jyves/Meyer_2008_Rapport_Expertise_Rapa_Nui.pdf [Accessed 21 March 2011]

[Motooka, Philip; Castro, Luisa; Nelson, Duane; Nagai, Guy & Ching, Lincoln, 2003. Weeds of Hawaii's Pastures and Natural Areas: An Identification and Management Guide. College of Tropical Agriculture and Human Resources, University of Hawaii at Manoa. 184 pp.](#)

Summary: Available from: http://www.ctahr.hawaii.edu/inweed/WeedsHI/W_Parasianthes_falcataria.pdf [Accessed 29 March 2011]

Ostertag, Rebecca; Cordell, Susan; Michaud, Jene; Cole, T. Colleen; Schulten, Jodie R.; Publico, Keiko M.; Enoka, Jaime H., 2009. Ecosystem and Restoration Consequences of Invasive Woody Species Removal in Hawaiian Lowland Wet Forest. *Ecosystems*. 12(3). APR 2009. 503-515.

[Pacific Island Ecosystems at Risk \(PIER\), 2005. Risk Assessment: *Falcataria moluccana* \(Miq.\) Barneby & J.W.Grimes, Fabaceae](#)

Summary: Available from: http://www.hear.org/pier/wra/pacific/falcataria_moluccana_htmlwra.htm [Accessed 21 March 2011]

[Pacific Island Ecosystems at Risk \(PIER\), 2010. *Falcataria moluccana* \(Miq.\) Barneby & J.W.Grimes, Fabaceae](#)

Summary: Available from: http://www.hear.org/pier/species/falcataria_moluccana.htm [Accessed 21 March 2011]

[Seacology Island Projects, 2010. American Samoa, Pago Pago Village, Tutuila Island - June 2008 Phase 3: Eradicate the dense stands of the destructive invasive tree \(*Falcataria moluccana*\), adjacent to the National Park areas of American Samoa \(NPSA\)](#)

Summary: Available from: http://www.seacology.org/projects/individualprojects/AMSAMOA_Fagasa2008.htm [Accessed 21 March 2011]

[Space C. James, Barbara M. Waterhouse, Melanie Newfield and Cate Bull, 2004. Report to the Government of Niue and the United Nations Development Programme. Invasive Plant Species on Niue following Cyclone Heta. UNDP NIU/98/G31 Niue Enabling Activity 17 December 2004](#)

Summary: Available from: <http://www.sprep.org/att/IRC/eCOPIES/INVASIVE%20SPECIES/niue.pdf> [Accessed 21 March 2011]

[Space C. James, Barbara Waterhouse, Julie S. Denslow and Duane Nelson, 2000c. Invasive Plant Species on Rota, Commonwealth of the Northern Mariana Islands. U.S.D.A. Forest Service Pacific Southwest Research Station Institute of Pacific Islands Forestry Honolulu, Hawaii, USA 25 October 2000](#)

Summary: Available from: http://sprep.org/att/IRC/eCOPIES/INVASIVE%20SPECIES/CMI_rota.pdf [Accessed 21 March 2011]

[Space C. James, David H. Lorence and Anne Marie LaRosa, 2009. Report to the Republic of Palau: 2008 update on Invasive Plant Species. U.S.D.A. Forest Service Pacific Southwest Research Station Institute of Pacific Islands Forestry Hilo, Hawaii, USA](#)

Summary: Available from: <http://www.sprep.org/att/irc/ecopies/countries/palau/48.pdf> [Accessed 21 March 2011]

[Space, James C. & Falanruw, Marjorie, 1999. Observations on invasive plant species in Micronesia. USDA Forest Service, Honolulu. Report to the Pacific Islands Committee, Council of Western State Foresters. USDA Forest Service, Honolulu. 32 pp.](#)

Summary: Available from: <http://www.hear.org/pier/reports/mreport.htm> [Accessed 21 March 2011]

[Space, James C. & Flynn, Tim, 2000a. Observations on invasive plant species in American Samoa. USDA Forest Service, Honolulu. 51 pp.](#)

Summary: Available from: <http://www.hear.org/pier/reports/asreport.htm> [Accessed 21 March 2011]

[Space, James C. & Flynn, Tim, 2000b. Report to the Government of Niue on Invasive Plant Species of Environmental Concern. U.S.D.A. Forest Service Pacific Southwest Research Station Institute of Pacific Islands Forestry Honolulu, Hawaii, USA](#)

Summary: Available from: http://hear.org/AlienSpeciesInHawaii/articles/pier/pier_niue_report.pdf [Accessed 21 March 2011]

[Space, James C. & Flynn, Tim, 2001. Report to the Kingdom of Tonga on invasive plant species of environmental concern. USDA Forest Service, Honolulu. 78 pp.](#)

Summary: Available from: <http://www.sprep.org/att/IRC/eCOPIES/Countries/Tonga/12.pdf> [Accessed 21 March 2011]

[Space, James C. & Flynn, Tim, 2002a. Report to the Government of the Cook Islands on Invasive Plant Species of Environmental Concern. U.S.D.A. Forest Service Pacific Southwest Research Station Institute of Pacific Islands Forestry Honolulu, Hawaii, USA](#)

Summary: Available from: http://lyris.sprep.org/att/IRC/eCOPIES/Countries/Cook_Islands/17.pdf [Accessed 21 March 2011]



GLOBAL INVASIVE SPECIES DATABASE

FULL ACCOUNT FOR: *Falcataria moluccana*

Space, James C. & Flynn, Tim. 2002b. Report to the Government of Samoa on Invasive Plant Species of Environmental Concern. U.S.D.A. Forest Service Pacific Southwest Research Station Institute of Pacific Islands Forestry Honolulu, Hawaii, USA

Summary: Available from: <http://www.sprep.org/att/IRC/eCOPIES/Countries/Samoa/27.pdf> [Accessed 21 March 2011]

Space, James C., Waterhouse, Barbara, Denslow, Julie S., Nelson, Duane, Mazawa, Thomas R. 2000a. Invasive plant species in Chuuk, Federated States of Micronesia. USDA Forest Service, Honolulu. 41 pp.

Summary: Available from: <http://www.hear.org/pier/reports/creport.htm> [Accessed 21 March 2011]

Space, James C., Waterhouse, Barbara, Denslow, Julie S., Nelson, Duane, Waguk, Erick E. 2000b. Invasive plant species on Kosrae, Federated States of Micronesia. USDA Forest Service, Honolulu. 43 pp.

Summary: Available from: http://www.hear.org/pier/reports/kosrae_report.htm [Accessed 21 March 2011]

General information

Allison, Steven D.; Nielsen, Caroline; Hughes, R. Flint., 2006. Elevated enzyme activities in soils under the invasive nitrogen-fixing tree *Falcataria moluccana*. Soil Biology & Biochemistry. 38(7). JUL 2006. 1537-1544.

Atwood, Trisha B.; Wiegner, Tracy N.; Turner, Jason P.; MacKenzie, Richard A., 2010. Potential Effects of an Invasive Nitrogen-Fixing Tree on a Hawaiian Stream Food Web. Pacific Science. 64(3). JUL 2010. 367-379.

Bishop Museum (Honolulu). 1967. Voucher specimen #BISH 664577 (MacKee, M. 18073)

Summary: Available from: <http://www.hear.org/vouchers/pier/bish0000664577.htm> [Accessed 29 March 2011]

Cordell, Susan; Ostertag, Rebecca; Rowe, Barbara; Sweinhart, Linda; Vasquez-Radonic, Lucero; Michaud, Jene; Cole, T. Colleen; Schulten, Jodie R., 2009. Evaluating barriers to native seedling establishment in an invaded Hawaiian lowland wet forest. Biological Conservation. 142(12). DEC 2009. 2997-3004.

Eagle, N. 2008. Commission approves biomass plant. The Garden Island, Lihue, HI, USA.

Summary: Available from: http://thegardenisland.com/news/article_434788b2-4437-5a71-b339-864e9b51172f.html [Accessed 28 March 2011]

Endress A. Bryan, 2002. The Importance of Endemic Species to Forest Succession in Palau. Micronesica 34(2):141-153, 2002

Summary: Available from: http://www.uog.edu/up/micronesica/dynamicdata/assetmanager/images/vol34/endress_141-153.pdf [Accessed 21 March 2011]

Florence J., Chevillotte H., Ollier C. & Meyer J.-Y. 2007. *Falcataria moluccana* Base de données botaniques Nadeaud de l'Herbier de la Polynésie française (PAP).

Summary: Available from: <http://flore.cbnm.org/index2.php?page=taxon&num=dab49080d80c724aad5ebf158d63df41> [Accessed 1 April 2008]

Florence, J., Chevillotte, H., Ollier, C., Meyer, J.-Y. 2010. Base de données botaniques Nadeaud de l'Herbier de la Polynésie Française (PAP). (online resource).

Summary: Available from: <http://www.herbier-tahiti.pf/> [Accessed 21 March 2011]

Florence, J., Chevillotte, H., Ollier, C., Meyer, J.-Y. 2010. *Falcataria moluccana* (F.A. Miquel) R.C. Barneby & J.W. Grimes. Base de données botaniques Nadeaud de l'Herbier de la Polynésie Française (PAP). (online resource).

Summary: Available from: http://www.herbier-tahiti.pf/Selection_Taxonomie.php?id_tax=20056 [Accessed 21 March 2011]

Fosberg, F. R.; Sachet, M.-H. 1987. Flora of Maupiti. Society Islands. The Smithsonian Institution. Atoll Research Bulletin 294:1-70.

Summary: Available from: <http://www.botany.hawaii.edu/faculty/duffy/arb/293-305/294.pdf> [Accessed 29 March 2011]

Gargominy, O., Bouchet, P., Pascal, M., Jaffre, T. and Tourneuf, J. C. 1996. Conséquences des introductions d'espèces animales et végétales sur la biodiversité en Nouvelle-Calédonie. Rev. Ecol. (Terre Vie) 51: 375-401.

Summary: Consequences to the biodiversity of New Caledonia of the introduction of plant and animal species.

Gerlach, Justin, 2004. A 10-year study of changes in forest vegetation on Silhouette island, Seychelles. Journal for Nature Conservation 12 (2004) 149-155

Hughes, R. Flint; Denslow, Julie S., 2005. Invasion by a N-2-fixing tree alters function and structure in wet lowland forests of Hawaii. Ecological Applications. 15(5). OCT 2005. 1615-1628.

Hughes, R. Flint; Ouwolo, Amanda, 2006. Impacts of *Falcataria moluccana* invasion on decomposition in Hawaiian lowland wet forests: The importance of stand-level controls. Ecosystems. 9(6). SEP 2006. 977-991.

ITIS (Integrated Taxonomic Information System), 2008. Online Database *Falcataria moluccana* (Miquel) Barneby & Grimes

Summary: An online database that provides taxonomic information, common names, synonyms and geographical jurisdiction of a species. In addition links are provided to retrieve biological records and collection information from the Global Biodiversity Information Facility (GBIF) Data Portal and bioscience articles from BioOne journals.

Available from: http://www.itis.gov/servlet/SingleRpt/SingleRpt?search_topic=TSN&search_value=565183 [Accessed 10 March 2008]

Kueffer, Christoph, 2010. Reduced risk for positive soil-feedback on seedling regeneration by invasive trees on a very nutrient-poor soil in Seychelles. Biological Invasions. 12(1). JAN 2010. 97-102.

Kueffer, C.; Klingler, G.; Zirfass, K.; Schumacher, E.; Edwards, P. J.; Guesewell, S., 2008. Invasive trees show only weak potential to impact nutrient dynamics in phosphorus-poor tropical forests in the Seychelles. Functional Ecology. 22(2). APR 2008. 359-366.

Lorence, David H. & Wagner, Warren L. 2008. Flora of the Marquesas Islands. National Tropical Botanical Garden and the Smithsonian Institution. Online database.

Summary: Available from: <http://botany.si.edu/pacificislandbiodiversity/marquesasflora/results.cfm> [Accessed 21 March 2011]

MacKee, H.S. 1994. Catalogue des plantes introduites et cultivées en Nouvelle-Calédonie, 2nd edn. MNHN, Paris.

Summary: Cet ouvrage liste 1412 taxons (espèces, sous espèces et variétés) introduits en Nouvelle-Calédonie. L'auteur précise dans la majorité des cas si l'espèce est cultivée ou naturalisée.

Mascaro, Joseph; Becklund, Kristen K.; Hughes, R. Flint; Schnitzer, Stefan A., 2008. Limited native plant regeneration in novel, exotic-dominated forests on Hawaii I. Forest Ecology & Management. 256(4). AUG 10 2008. 593-606.

McCormack, Gerald. 2008. Cook Islands Biodiversity Database, Version 2007.2. Cook Islands Natural Heritage Trust, Rarotonga.

Summary: Available from: <http://cookislands.bishopmuseum.org/species.asp?id=6477> [Accessed 29 March 2011]



GLOBAL INVASIVE SPECIES DATABASE

FULL ACCOUNT FOR: *Falcataria moluccana*

Meyer, Jean-Yves. 2000. Preliminary review of the invasive plants in the Pacific islands (SPREP Member Countries). In: Sherley, G. (tech. ed.). *Invasive species in the Pacific: A technical review and draft regional strategy*. South Pacific Regional Environment Programme, Samoa. 190 pp.

Summary: Available from: http://www.issg.org/database/reference/Invasive_strategy_and_species.pdf [Accessed 29 March 2011]

Meyer, Jean-Yves. 2007. *Rapport de mission sur l'île d'Uvea (Wallis & Futuna) du 6 au 17 Novembre 2007: Inventaire préliminaire de la flore vasculaire secondaire* [unpublished report]. Délégation à la Recherche, Ministère de l'Éducation, l'Enseignement Supérieur et la Recherche, B.P. 20981 Papeete, Tahiti, Polynésie française. 39 pp.

Summary: Available from: http://www.li-an.fr/jyves/Meyer_2007_Rapport_Plantes_Introduites_Wallis.pdf [Accessed 29 March 2011]

Meyer, J.-Y. 2000. *Invasive plants in the Pacific Islands*. In: *The Invasive Species in the Pacific: A Technical Review and Draft Regional Strategy*. Sherley, G. (tech. ed.). Published in June 2000 by the South Pacific Regional Environment Programme (SPREP).

Summary: Resource that includes the distribution of invasive species throughout the Pacific Islands.

Meyer, J.-Y. 2007. Conservation des forêts naturelles et gestion des aires protégées en Polynésie française. *Bois et forêts des tropiques*, 291 (1), 25-30.

Meyer, J.-Y., Loope, L., Sheppard, A., Munzinger, J., Jaffre, T. 2006. Les plantes envahissantes et potentiellement envahissantes dans l'archipel néo-calédonien : première évaluation et recommandations de gestion. in M.-L. Beauvais et al. (2006) : *Les espèces envahissantes dans l'archipel néo-calédonien*, Paris, IRD éditions, 260 p.+ cdrom.

Mueller-Dombois, Dieter , 2008. Pacific Island Forests: Successionally Impoverished and Now Threatened to Be Overgrown by Aliens? *Pacific Science*, 62(3):303-308. 2008.

National Tropical Botanical Garden (U.S.A. Hawaii. Kalaheo.). 1993. *Voucher specimen #PTBG41748 (Art Whistler 9357)*

Summary: Available from: <http://www.hear.org/vouchers/pier/ptbg0000041748.htm> [Accessed 29 March 2011]

Oppenheimer, Hank. 2007. *New plant records from Molokai, Lanai, Maui, and Hawaii for 2006*. In: Evenhuis, Neal L. and Eldredge, Lucias G., eds. *Records of the Hawaii Biological Survey for 2006. Part 2: Notes*. Bishop Museum Occasional Papers 96:17-34.

Summary: Available from: <http://hbs.bishopmuseum.org/publications/op96.pdf> [Accessed 29 March 2011]

Pallewatta, N., J.K. Reaser, and A.T. Gutierrez. (eds.). 2003. *Invasive Alien Species in South-Southeast Asia: National Reports & Directory of Resources*. Global Invasive Species Programme, Cape Town, South Africa.

Robertson, S. A. & Todd, D. M. 1983. *Vegetation of Frigate Island, Seychelles*. In: Sachet, M. H., D. R. Stoddart, and F. R. Fosberg. *Floristics and ecology of Western Indian Ocean islands*. Atoll Research Bulletin No. 273. Smithsonian Institution, Washington. 253 pp.

Summary: Available from: <http://www.botany.hawaii.edu/faculty/duffy/arb/273-281/273.pdf> [Accessed 29 March 2011]

Space C. James, Barbara M. Waterhouse, Joel E. Miles, Joseph Tiobech and Kashgar Rengulbai, 2003. *Report to the Republic of Palau on Invasive Plant Species of Environmental Concern*. U.S.D.A. Forest Service Pacific Southwest Research Station Institute of Pacific Islands Forestry Honolulu, Hawaii, USA

Starr, Forest; Starr, Kim & Loope, Lloyd. 2003. *Falcataria moluccana*.

Summary: Available from: http://www.hear.org/starr/hiplants/reports/pdf/falcataria_moluccana.pdf [Accessed 28 March 2011]

Tuttle, Nathania C.; Beard, Karen H.; Pitt, William C., 2009. Invasive litter, not an invasive insectivore, determines invertebrate communities in Hawaiian forests. *Biological Invasions*. 11(4). APR 2009. 845-855.

USDA, ARS. 2011. *Taxon: Falcataria moluccana (Miq.) Barneby & J. W. Grimes*. National Genetic Resources Program. Germplasm Resources Information Network - (GRIN) [Online Database]. National Germplasm Resources Laboratory, Beltsville, Maryland.

Summary: Available from: <http://www.ars-grin.gov/cgi-bin/npgs/html/taxon.pl?405168> [Accessed 21 March 2011]

USDA, NRCS. 2011. *Falcataria moluccana (Miq.) Barneby & Grimes peacocksplume*

Summary: Available from: <http://plants.usda.gov/java/profile?symbol=FAMO> [Accessed 21 March 2011]

Wiegner, Tracy N.; Tubal, Randee L., 2010. Comparison of Dissolved Organic Carbon Bioavailability from Native and Invasive Vegetation along a Hawaiian River. *Pacific Science*. 64(4). OCT 2010. 545-555.