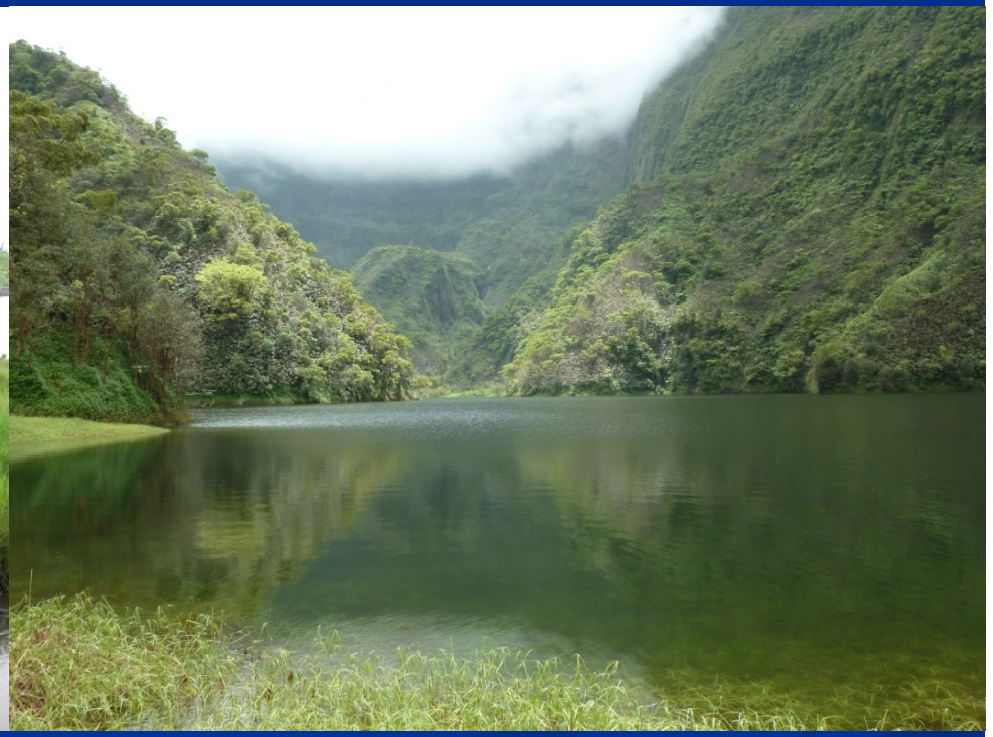
"11th INTECOL", Christchurch, NEW ZEALAND, 13 October 2021

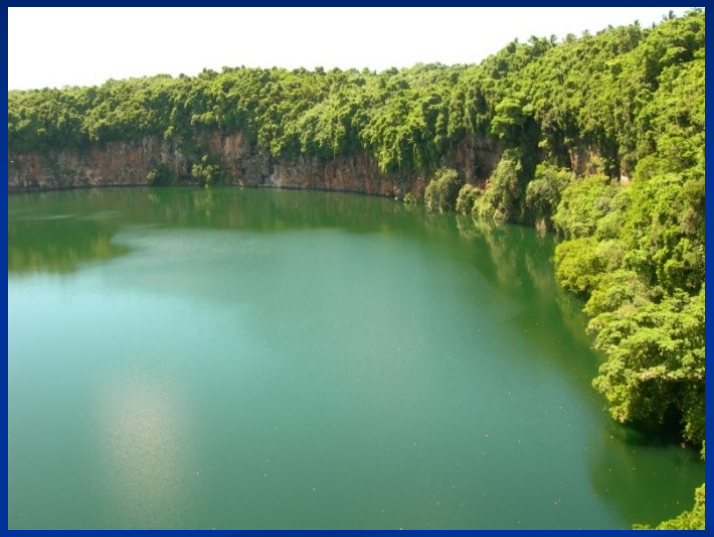
Wetlands of the islands of French Polynesia (South Pacific) : ecosystems at risk !



Jean-Yves Hiro MEYER (Dr.)
Délégation à la Recherche de la Polynésie française, Papeete, Tahiti
jean-yves.meyer@recherche.gov.pf

Wetlands in Pacific Islands (I)

Rano Kau (Rapa Nui)



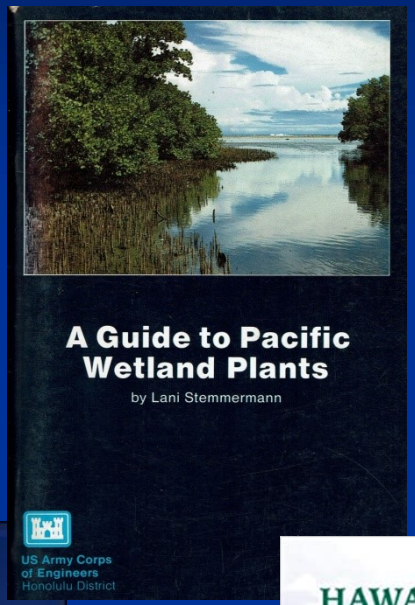
Lac Lalolalo, 'Uvea (Wallis et Futuna)

Chutes de la Madeleine (New Caledonia)

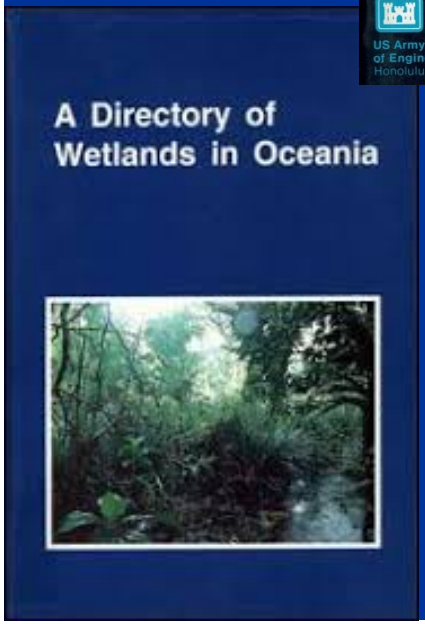
Te Roto, Atiu (Cook)

Wetlands in Pacific Islands (II)

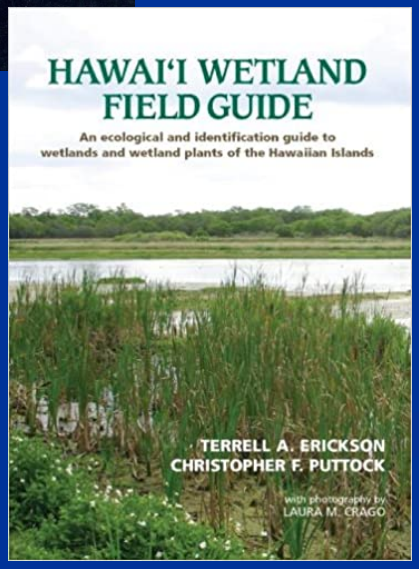
1981



1993



2006



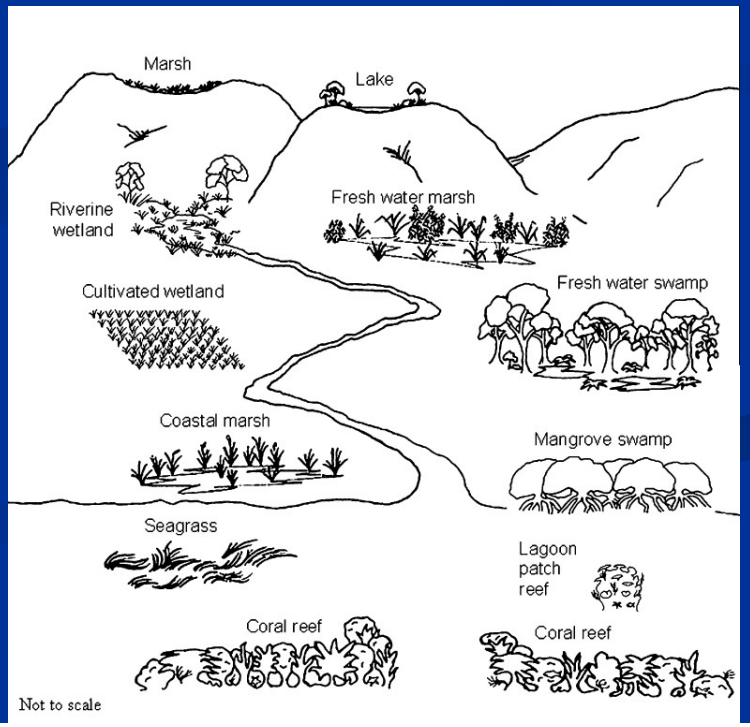
2009

Wetlands Ecol Manage (2009) 17:169–206
DOI 10.1007/s11273-008-9097-3

ORIGINAL PAPER

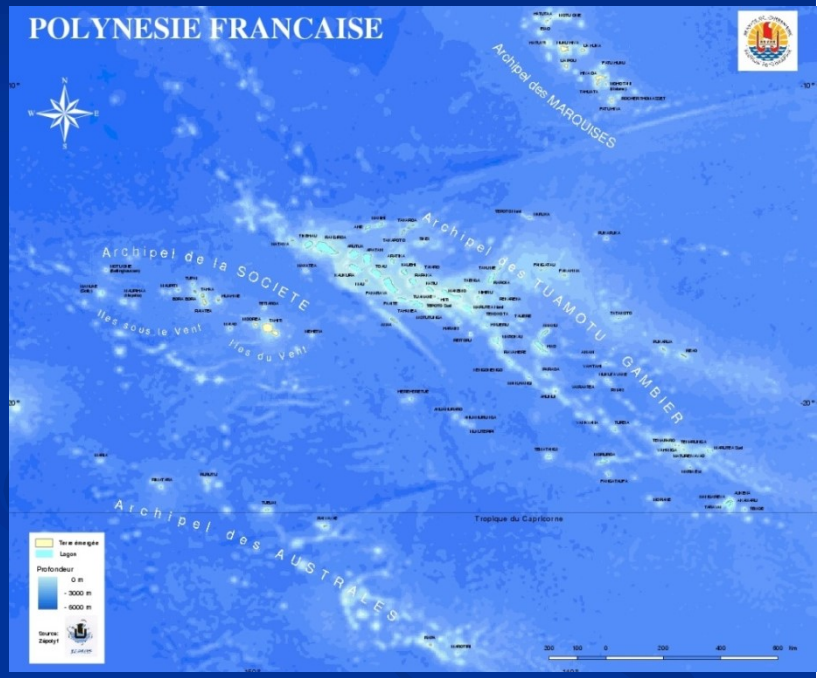
Wetlands of the Pacific Island region

Joanna C. Ellison



French Polynesia: the Southeastern corner of the Pacific

La Polynésie Française dans le Pacifique



- 120+ tropical and subtropical oceanic islands
- 5 archipelagoes
- Total land area = 3,520 km²
- 280,000 inhabitants

"11th INTECOL", Christchurch, NEW ZEALAND, 13 October 2021

Wetlands in French Polynesia

2016


Tubuai (Austral)

Contribution à la Biodiversité de Polynésie française N°19

Sites Naturels d'Intérêt Ecologique et Patrimonial VIII

LES ZONES HUMIDES DE POLYNESIE FRANÇAISE : UN ECOSYSTEME MECONNU, MESESTIME ET MENACE

par

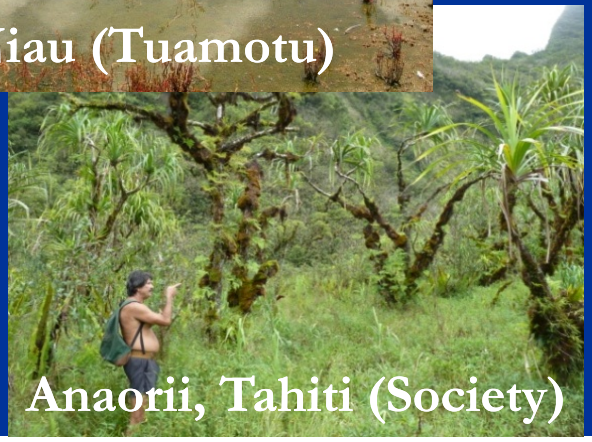
Jean-Yves MEYER (Dr.)*

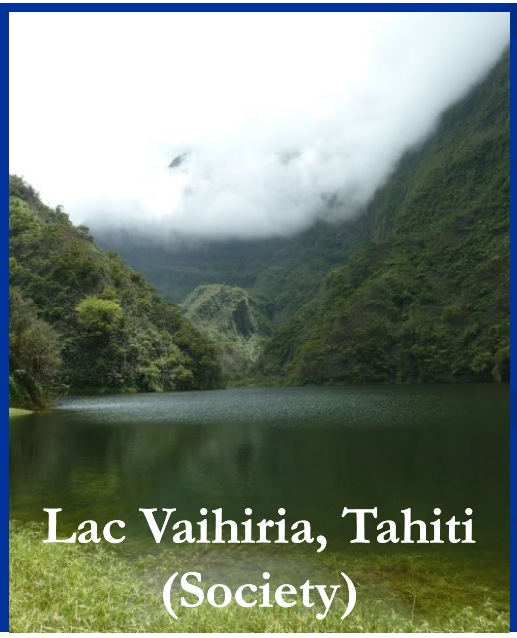
*Délégation à la Recherche, B.P. 20981, 98713 Papeete, Tahiti, Polynésie française ; E-mail : jean-yves.meyer@recherche.gov.pf


Maiao (Society)


Niau (Tuamotu)

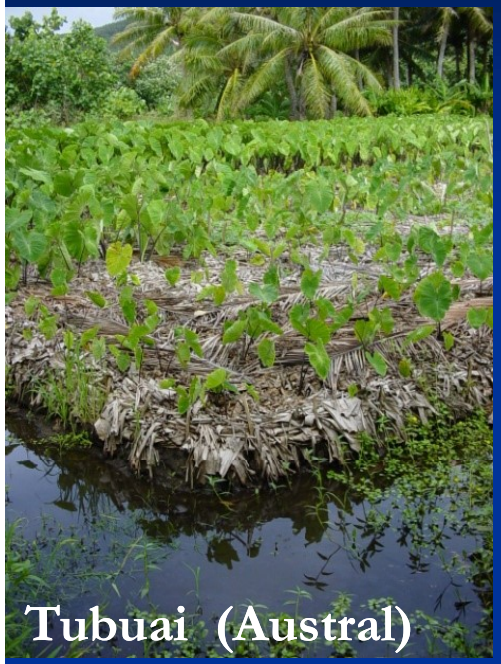

Motu Horoatera, Tetiaroa (Society)


Anaorii, Tahiti (Society)


Lac Vaihiria, Tahiti (Society)


Toovii, Nuku Hiva (Marquesas)

Cultural and economical importance



Tubuai (Austral)

Rurutu (Austral)

Lac Maeva, Huahine (Society)

Colocasia esculenta (taro)

Rapa (Austral)

Lac Temae, Moorea (Society)

Ecological importance (I): plants

- Specific wetland habitats:
  - "*Almost-mangrove swamps*" (Mueller-Dombois & Fosberg 1998) = "*Ilots de submangrove*" (Papy 1951-54, Rivals 1952)
  - *Paspalum vaginatum* salty marshes

Vaipoiri, Tahiti iti (Society)

Huahine (Society)

Niau (Tuamotu)

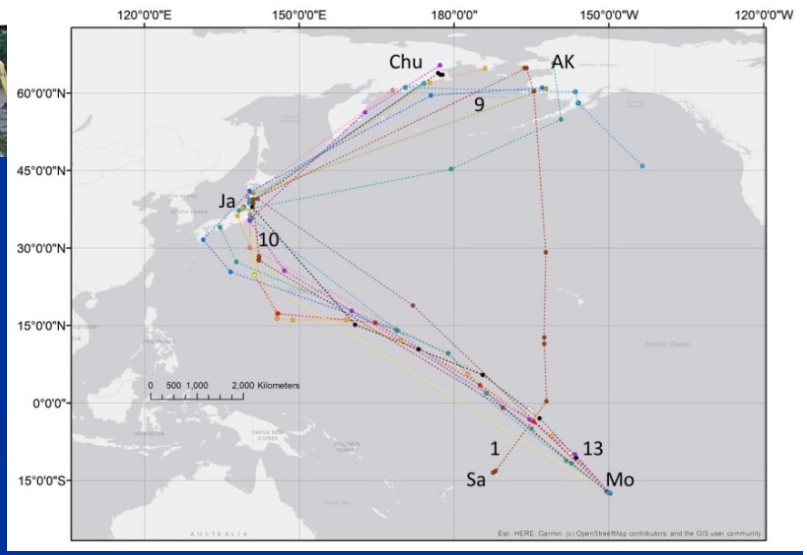
Acrostichum aureum ('āoa)

Ecological importance (II): birds

Butorides striata patruelis (CR)

Pluvialis fulva (LC)

Anas superciliosa (VU)



(Johnson *et al.* 2020. *Wader Study* 127(1): 53-59)

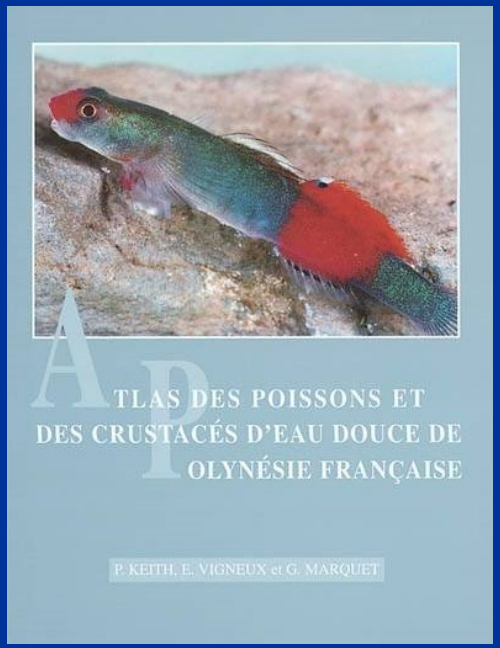
Ecological importance (III): fishes

- Gobies ('o'opu, kokopu, kikopu): 6 genera, 16 species (*Awaous*, *Eleotris*, *Lentipes*, *Sicyopterus* , *Stenogobius*, *Stiphodon*)

Awaous ocellaris (mo'omo'o)

Sicyopterus pugnans ('apiri)

2002



Lentipes rubrofasciatus (kikitu ku'a)

Stiphodon elegans

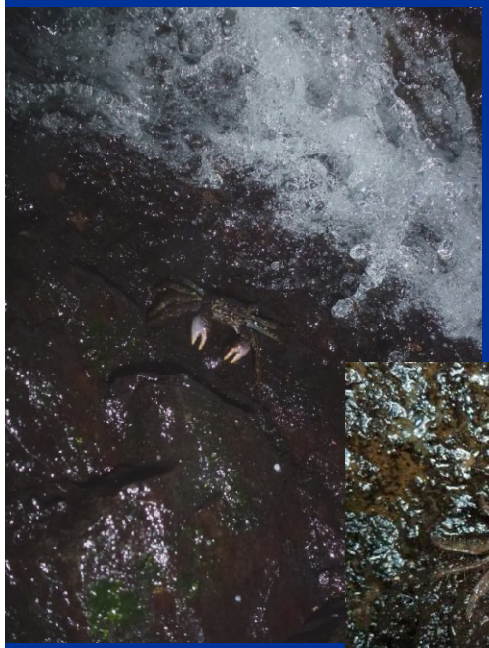
Stiphodon tuivi

- Eels (puhi): 1 genus *Anguilla*, 3 species

Ecological importance (IV): crustaceans

- 3 families, 18 species
  - Atyidae (shrimps): 2 genera (*Athyoida*, *Caradina*), 4 species
  - Grapsidae (crabs):, 5 genera
  - Palaemonidae (prawns): 2 genera (*Palaemon*, *Macrobrachium*), 9 species

Athyoida pilipes



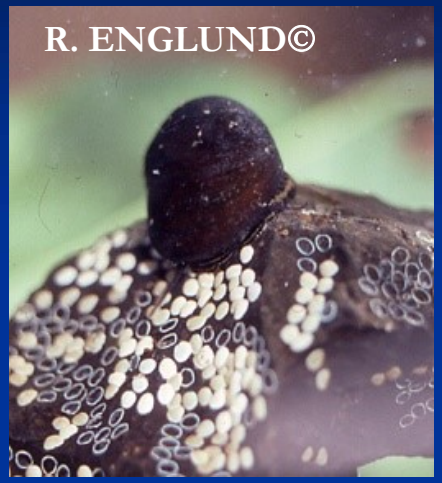
Labuanium sp.

Macrobrachium latimanus

Ecological importance (V): mollusks

- 7 families, 15+ species
  - Neritidae: 4 genera (*Clithon*, *Neritina*, *Septaria*, *Neritilia*), 7 species
  - Hydrobiidae (*Fluviopupa*)
  - Thiaridae

Septaria porcellana



Neritina canalis

Fluviopupa sp.

Clithon spinosus

Molluscan Research 25(3): 145–163
http://www.mapress.com/mr/

ISSN 1323-5818
Magnolia Press

Rissooidean freshwater gastropods from the middle of the Pacific: the genus *Fluviopupa* on the Austral Islands (Caenogastropoda)

M. HAASE[1,2], O. GARGOMINY[1] & B. FONTAINE[1]

[1]Muséum National d'Histoire Naturelle, Case postale 51, 55 rue Buffon, F-75231 Paris cedex 05, France
[2]Present address and address for correspondence: Zoologisches Forschungsmuseum Alexander Koenig, Section Molecular Biology, Adenauerallee 160, D-53113 Bonn, Germany, Tel: 0049 228 91 22 242, FAX: 0049 228 91 22 212, Email: martin_haase@excite.com

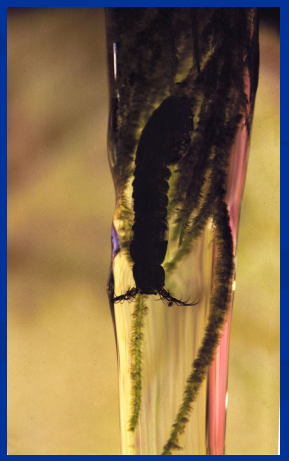
Ecological importance (VI): insects

- **Diptera**
  - Culicidae (mosquitoes): 3 native *Aedes*, 10 *Culex*)
  - Dolichopodidae (water-skating fly): *Campsicnemus* with 34 endemic species
  - Simuliidae (black flies): *Simulium* with 48 endemics (25 Society, 9 Marquesas)
  - Chironomidae
- **Heteroptera**
  - Gerridae (*Limnogonus*)
  - Veliidae (*Microvelia*)
  - Notonectidae (*Anisops*)
- **Coleoptera**
  - Carabidae (*Gyrinus*)
  - Ditiscidae (*Rhanthus*)
  - Hydrophilidae

***Campsicnemus* sp. nov. (Rapa)**

Simulium cataractarum

(Craig 2003 *BioScience* 53(11): 1079-1093)



***Rhantus englundi* (Tubuai)**

- **Odonates (20+ species, 10+ endemics)**
  - Anisoptera (dragonflies): 3 families, 7 genera (*Anaciaeschna, Anax, Diplacodes, Hemicordulia, Pantala, Tholymis, Tramea*)
  - Zygoptera (damselflies): 1 family, 2 genera (*Bedfordia, Ischnura*)

***Anas guttatus* (Nuku Hiva)**

2019

***Ischnura jeanyvesmeyeri* (Raivavae)**

***Bedfordia* sp. nov. (Ua Pou)**

Ischnura taitensis

Scientific importance: a window on the past (I)

Journal of Biogeography (J. Biogeogr.) (2016)

ORIGINAL ARTICLE

Abrupt late Pleistocene ecological and climate change on Tahiti (French Polynesia)

Matthew Prebble[1]*, Rose Whitau[1], Jean-Yves Meyer[2], Llewellyn Sibley-Punnett[1], Stewart Fallon[3] and Nick Porch[4]

Vaifanauraamoora, Tetamanu plateau Punaruu valley, Tahiti (Society)

Tubuai (Austral Is.)

Extinct *Pritchardia* spp.

Scientific importance: a window on the past (II)

Polynesian colonization and landscape changes on Mo'orea, French Polynesia: The Lake Temae pollen record

Janelle Stevenson,[1] Alexis Benson,[1] J. Stephen Athens,[2]
Jennifer Kahn[3] and Patrick V Kirch[4]

The Holocene
1–13

DOI: 10.1177/0959683617715400
journals.sagepub.com/ho
SAGE

Fitchia sp. nov. (Asteraceae)

A highly threatened ecosystem

Tubuai (Austral), 2003

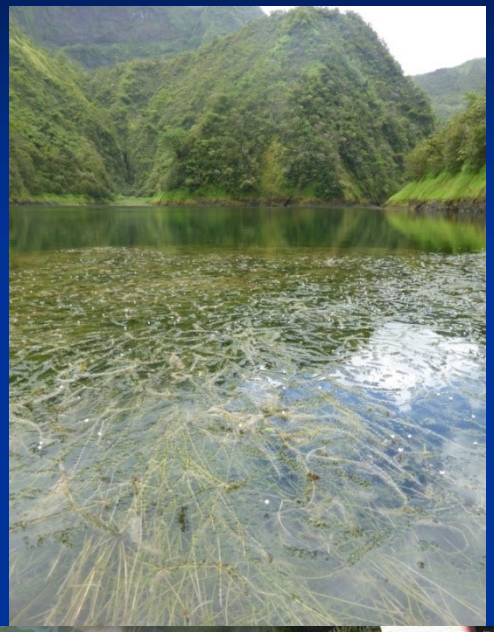
Moorea (Society), 2018

Faratea, Tahiti Iti (Society), 2002

Faatautia, Tahiti Nui (Society), 2005

Lac Vaiufaufa , Tahiti Iti (Society), 2010

Invasive alien plants



Ceratophyllum sp. (Moorea)

Pistia stratiotes (Moorea)

Egeria densa (Tahiti)

Eichhornia crassipes (Tahiti)

Invasive alien animals

Oreochromis mossambicus

Feral pigs, Temehani plateau, Raiatea (Society)

Poecilia mexicana (sphenops)

Trachemys scripta elegans

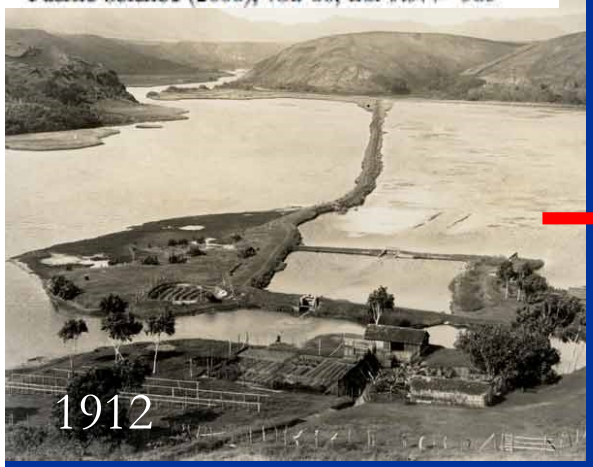
Cattle , Toovii plateau, Nuku Hiva (Marquesas)

Introduced mangroves in Hawai'i and the Society Islands

Current Extent and Historical Expansion of Introduced Mangroves on O'ahu, Hawai'i[1]

Rodney A. Chimner,[2,3,4] *Brian Fry,*[3,5] *Mahealani Y. Kaneshiro,*[6,7] *and Nicole Cormier*[3]

Pacific Science (2006), vol. 60, no. 3:377–383



Global Ecology and Biogeography Letters (1998) **7**, 61–71

MANGROVE SPECIAL ISSUE

Mangroves as alien species: the case of Hawaii

JAMES A. ALLEN *U.S.D.A. Forest Service, Institute of Pacific Islands Forestry, 1151 Punchbowl St., Rm. 323, Honolulu, HI 96813 U.S.A. email: jimallen@gte.net*

Alekoko fishpond, Kaua'i (Hawaii)

« Rhizophora mucronata *var.* stylosa *was introduced into the Society Islands on the south coast of Moorea in 1930 (fide Mr. Kellum, pers. comm.)* » (Fosberg 1993. *Allertonia* 7(2): 69)

Pacific Science (1979), vol. 33, no. 2

***Rhizophora* in the Society Islands**[1]

F. J. TAYLOR[2]

ABSTRACT: *Rhizophora stylosa* Griff. is recorded from Moorea and Bora Bora in the Society Islands. Earlier records from the Society Islands of *R. mangle* L. by Forster (1786) and *R. mucronata* Lam. by Gray (1854) are probably the result of mislabeling, and there is no evidence that the present stands of *Rhizophora* are not recent introductions.

A novel ecosytem?

Biol Invasions
https://doi.org/10.1007/s10530-021-02520-9

ORIGINAL PAPER

Introduced mangroves in the Society Islands, French Polynesia (South Pacific): invasive species or novel ecosystem?

Jean-Yves Meyer · Florent Taureau · Laetitia Bisarah · Rakamaly Madi Moussa · Elena Gorchakova · Anne Caillaud

Tetiaroa atoll , 2018

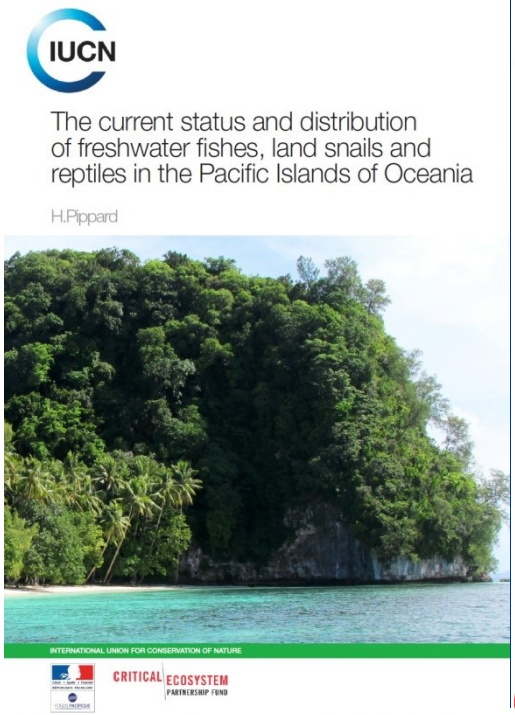
Huahine, 2007

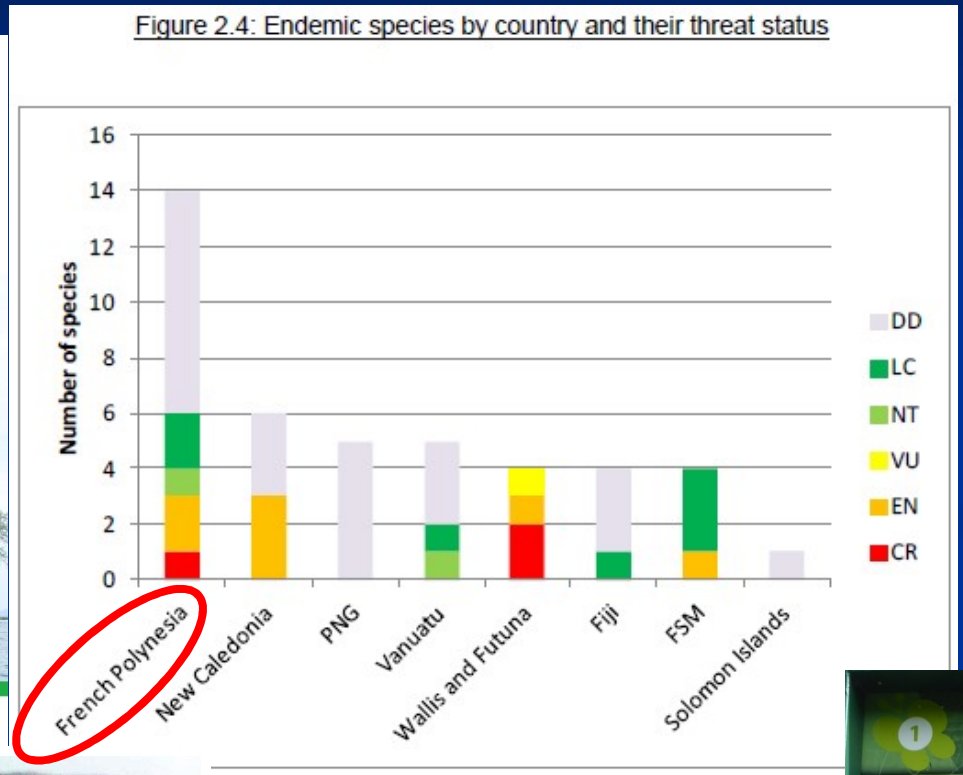
Raiatea, 2005

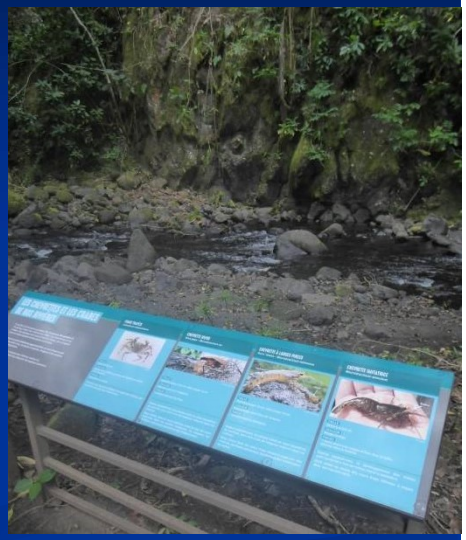
Moorea, 2019

Conservation & Public awareness

2012







Fautaua valley (Tahiti)

Stiphodon julieni, EN.
Endemic to French Polynesia, this species is known from three locations (3 rivers) on the small island of Rapa. It is experiencing a continuing decline in the quality of its habitat, largely caused by deforestation.
© E.Vigneux

Stiphodon julieni, Rapa (EN)

Lac Vaihiria (Tahiti)

Lac Temae, Moorea (Society)

Ramsar

Fiche descriptive Ramsar

Publiée le 15 September 2008

2008

France

Lagon de Moorea

Date d'inscription	15 September 2008
Site numéro	1834
Coordonnées	17°30'S 149°49'59"W
Superficie	5 000,00 ha

Restoration projects in French Polynesia

Paea district, Tahiti (Society)

Mahu district, Tubuai (Austral Is.)

BEST 2.0+ B4Life

ilm Institut Louis Malardé

TE ORA NAHO
Fédération des Associations de Protection de l'Environnement

Acknowledgements

Matiu PREBBLE (Australian National University, Canberra), *Rimatara, 2004*

Philippe KEITH (National Museum of Natural History), *Paris, 2010*

Ron ENGLUND (Bishop Museum, Honolulu), *Hakaui Falls, Nuku Hiva, 2012*

Neil EVENHUIS (Bishop Museum, Honolulu), *Anaorii plateau, Tahiti, 2007*

Questions?


Journée mondiale
des zones humides
Du 30 janvier au 28 février 2021
Les zones humides et l'eau