

GUAM

Summary of species on the 2008 IUCN Red List



The Pacific islands of Oceania cover almost 15% of the world's surface and are characterised by a high degree of ecosystem and species diversity. The region is characterised by thousands of isolated small coral atolls and higher volcanic islands, which has led to the high diversity of species found today. In fact, the number of plants and animals found nowhere else on earth (endemic species) is extremely high - often up to 90% for particular groups. Often, these rare and endemic species are adapted to specialised habitats and limited to small areas of a few islands. With economic and cultural dependence on the natural environment very high in the Pacific islands, along with a rapidly expanding human population, there are ever increasing demands on the region's natural resources. Plant and animal species are therefore vulnerable to extinction from climate change, competition from introduced (invasive) species and human impacts such as habitat destruction, over-harvesting of species and pollution.

In order to make informed decisions to deal with these challenges, a sound knowledge of species found in the region and information on their conservation status and distribution is needed. A growing number of national and international conventions and agreements now exist, concerned with conserving biodiversity, preserving wetlands and migratory species, and regulating trade in endangered species. Governments and decision-makers need reliable and quality information on the status of biodiversity, in order to work together to meet targets set by these agreements, and ultimately stem the extinction crisis.

However, there are currently many gaps in the knowledge of species in Guam and the rest of the Pacific islands. At present, there is no regional resource documenting which species exist and/or are threatened in Guam or the Pacific islands. Data is often dispersed, taxonomic expertise is absent, and nomenclature and classification systems often disputed for various species. For a region known for its biodiversity hotspots, data is lacking and there are few links to regional and national policies.

The threatened status of animals and plants is one of the most useful signs for assessing the condition of an ecosystem and its biodiversity. The IUCN Red List of Threatened Species™ (IUCN Red List) is widely recognized as the most comprehensive, apolitical approach for assessing and monitoring the status of biodiversity. It provides taxonomic, conservation and distribution data on taxa that have been evaluated using the IUCN Red List Categories and Criteria. Volunteer experts of IUCN's Species Survival Commission (SSC), Birdlife International, the Center for Applied Biodiversity Science of Conservation International and NatureServe, supply and collate information on a species' taxonomy, ecology, distribution, conservation status and use and access their relative threat according to the IUCN guidelines. This information can then be disseminated to governments and decision-makers throughout the world. There is strong support in the region for updating and improving the information in the Red List as a foundation for conservation work.

The IUCN Red List Categories and Criteria were developed for applying at the global level. As a result, any regional level assessments of non-endemic species based on these criteria could result in incorrect or misleading listings. This in turn could have adverse consequences if the listings are

linked to conservation priority setting schemes. IUCN has therefore produced a set of regional guidelines for the assessment of endemic and non-endemic species at country or regional levels.

In order to begin the process of creating a Regional Red List for the Pacific islands, the current number and status of species listed on the Red List and found in the Pacific islands must be known.

This summary sheet provides a snapshot of the number of species in Guam documented in the 2008 IUCN Red List.

The summary sheet is part of the larger document, "The Pacific islands: An analysis of the status of species as listed on the 2008 IUCN Red List of Threatened Species™, which can be obtained from the IUCN Oceania Regional Office. Data sources and references used in this summary sheet can be found in the full analysis document. The analysis also contains a 2008 Red List for Pacific islands Animals and Plants. This allows us to see the current status of all the species in the Pacific islands, which have been assessed using the IUCN Red List categories and criteria.

The 2008 Red List provides the most up-to-date collated information for Guam. However, this analysis indicates that our knowledge and information on the biodiversity of Guam and the Pacific islands as a whole, is generally either limited in accuracy and scope, out of date, or poorly documented. For instance, only mammals, amphibians and birds have been completely assessed according to IUCN Red List criteria at the global scale. Gaps exist at the global and regional level for reptiles, fishes, invertebrates (aside from hard corals) and all plants. Freshwater species are under-represented, as are marine species, especially when compared to the estimated number of described species.

The creation of a Regional Red List for the Pacific islands will form a baseline to help in determining the conservation status and trends of species in Guam and the Pacific islands in general. It will help to identify species or ecosystems under greatest threat; assist in conservation planning and priority setting; and raise awareness of threatened species throughout Guam and the Pacific islands. The list will also enable the monitoring of biodiversity, determination of the success of conservation initiatives, and reporting to various Conventions (e.g. the Convention on Biodiversity), on trends in biodiversity.

Funding is currently being sought by IUCN Oceania in order to begin the process of Regional Red Listing in the Pacific islands. The findings of the document, "The Pacific islands: An analysis of the status of species as listed on the 2008 IUCN Red List of Threatened Species™, indicate the current taxonomic and geographic gaps in our knowledge. Prioritising research efforts in these areas will enable us to conduct regional assessments and gather relevant data to produce a comprehensive Regional Red List for the Pacific islands.

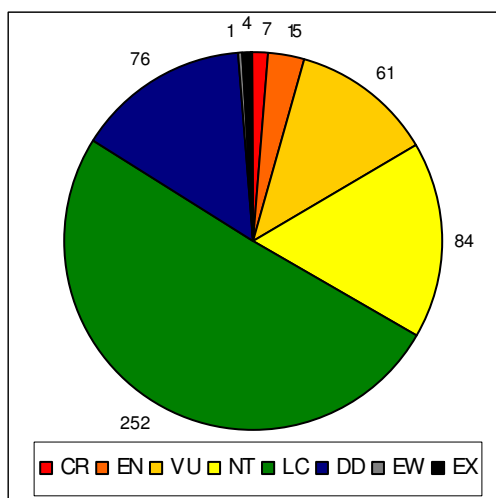
GUAM Summary

Estimated number of described and assessed species

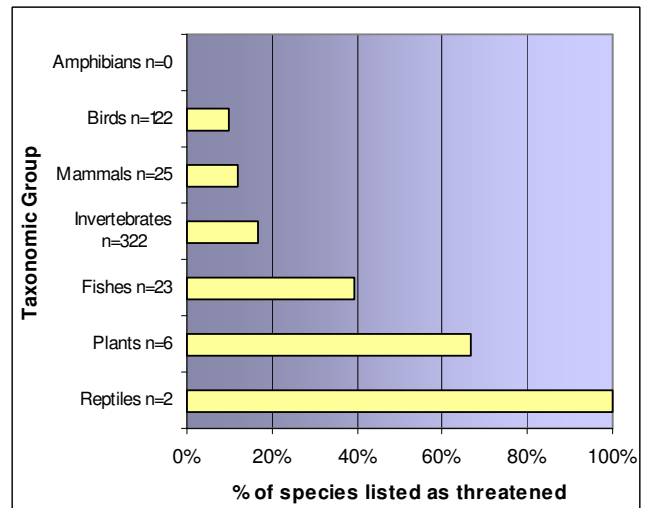
Taxonomic Group	Sub group	Estimated number of species described*	Number of Species Assessed
Plants	Mosses	5	0
	Ferns	46	0
	Cycads	4	1
	Conifers	1	0
	Dicots	139	5
	Monocots	137	0
	Algae	0	0
	Fungi	29	0
Total Plants		361	6
Birds		122	122
Mammals		25	25
Reptiles		11	2
Amphibians		0	0
Fish	Marine Fish	1003	23
	Fresh-water Fish	19	0
Total Fish		1022	23
Invertebrates	Insecta	214	0
	Arachnids	9	0
	Hard Corals	260	260
	Molluscs (Bivalves and Gastropods)	77	61
	Crustaceans	unknown	1
	Hydrozoa	unknown	0
	Other Invertebrates	unknown	0
Total Invertebrates		560	322
Totals		2101	500

*For sources, see page 2 of "The Pacific islands: An analysis of the status of species as listed on the 2008 IUCN Red List of Threatened Species™"

Number of assessed species in each Red List category



Percentage of assessed species listed as threatened (CR, EN, VU categories)



Extinctions

Gastropoda	Aves	Mammalia
EX (2)	EX (1)	EW (1)
Partula salifana Partula salifera	Myiagra freycineti	Gallirallus owstoni
		EX (1)
		Pteropus tokudae

Guam Rail, *Gallirallus owstoni*




Photo credit Suzanne Medina/Guam Department of Agriculture

Prior to its extinction in 1987, the Guam rail occurred throughout the island of Guam. The rail disappeared from southern Guam in the mid 1970s and by 1980, only

10 rails were recorded (Fish and Wildlife Service, 2008). In a desperate move, approximately 20 birds were caught in the wild in the mid-1980s and placed in captive breeding on Guam as well as in the continental United States. No re-introductions are likely on Guam due to the presence of feral cats, rats and the invasive brown tree snake. Guam rails have been introduced on adjacent Rota in the Northern Marianas, where neither threat occurs.

Assessed endemic species (not including EX or EW)

Almost 10% (48 species) of Guam's assessed species are endemic. Almost all (45 species) are Gastropods. Figure 11 of the Analysis indicates their threat categories. The graph below shows the percentage of Guam's assessed species that are endemic, by class.

