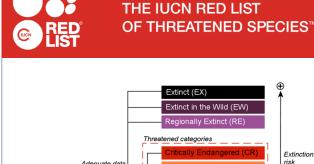
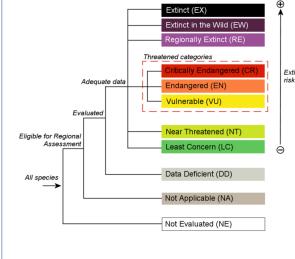


"Since 1969, when Irian Jaya was incorporated into Indonesia, it had been difficult and at times impossible for researchers to work there. By the late 1980s... it was possible to consider carrying out faunal survey work in the province. This was a most exciting prospect, for Irian Jaya was (and indeed remains today) a great blank spot on the map of zoological exploration."

Tim Flannery, THROWIM WAY LEG
Text Publishing, Melbourne 1999

The wildlife examined in this paper are in the IUCN Red List categories of Critically Endangered, Endangered, Vulnerable, or Data Deficient.





A2, A3 & A4 A1 Population reduction observed, estimated, inferred, or suspected in the past where the causes of the reduction are clearly reversible AND understood AND have ceased. A2 Population reduction observed, estimated, inferred, or suspected in the past where the causes of reduction may not have ceased OR may not be understood OR may not be reversible. A3 Population reduction projected, inferred or suspected to be met in the future (up to a maximum of 100 years) [(a) cannot be used for A3].

A1

A4 An observed, estimated, inferred, projected or suspected population reduction where the time period must include both the past and the future (up to a max. of 100 years in future), and where the causes of reduction may not have ceased OR may not be understood OR may not be reversible. B. Geographic range in the form of either B1 (extent of occurrence) AND/OR B2 (area of occupancy)

(c) a decline in area of occupancy (AOO), extent of occurrence based on (EOO) and/or habitat quality any of the (d) actual or potential levels of following: exploitation effects of introduced taxa, hybridization, pathogens, pollutants, competitors or parasites.

Vulnerable

≥ 50%

≥ 30%

< 2,000 km²

≤ 10

Vulnerable

index of abundance

(a) direct observation [except A3]

appropriate to the taxon

Endangered

≥ 70%

> 50%

Endangered Vulnerable < 5,000 km² < 20,000 km²

B2. Area of occupancy (AOO) < 10 km² $< 500 \text{ km}^2$ AND at least 2 of the following 3 conditions: (a) Severely fragmented OR Number of locations = 1 ≤ 5

A. Population size reduction. Population reduction (measured over the longer of 10 years or 3 generations) based on any of A1 to A4

Critically Endangered

≥ 90%

≥ 80%

(b) Continuing decline observed, estimated, inferred or projected in any of: (i) extent of occurrence; (ii) area of occupancy; (iii) area,

extent and/or quality of habitat; (iv) number of locations or subpopulations; (v) number of mature individuals

< 250

Critically Endangered

< 100 km²

Extreme fluctuations in any of: (i) extent of occurrence; (ii) area of occupancy; (iii) number of locations or subpopulations; (iv) number

of mature individuals C. Small population size and decline Critically Endangered **Endangered**

Number of mature individuals

B1. Extent of occurrence (EOO)

AND at least one of C1 or C2

C1. An observed, estimated or projected continuing decline of at least (up to a max. of 100 years in future):

25% in 3 years or 1 generation (whichever is longer) 20% in 5 years or 2 generations

< 2.500

(whichever is longer)

95-100%

< 250

< 10,000 10% in 10 years or 3 generations

An observed, estimated, projected or inferred continuing decline AND at least 1 of the following 3 conditions: (a) (i) Number of mature individuals in each subpopulation

(ii) % of mature individuals in one subpopulation =

≤ 50 90-100% ≤ 250

(whichever is longer)

≤ 1.000

100%

(b) Extreme fluctuations in the number of mature individuals

D. Very small or restricted population

D. Number of mature individuals

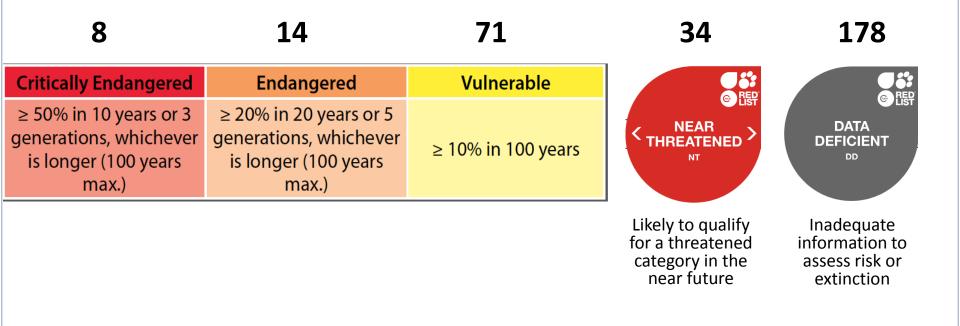
or EX in a very short time.

D2. Only applies to the VU category Restricted area of occupancy or number of locations with a plausible future threat that could drive the taxon to CR

Critically Endangered < 50

Endangered Vulnerable D1. < 1,000 D2. typically: $AOO < 20 \text{ km}^2 \text{ or}$ number of locations ≤ 5

DEFINITION OF CATEGORIES, AND NUMBER OF SPECIES WITH PROBABILITY OF EXTINCTION





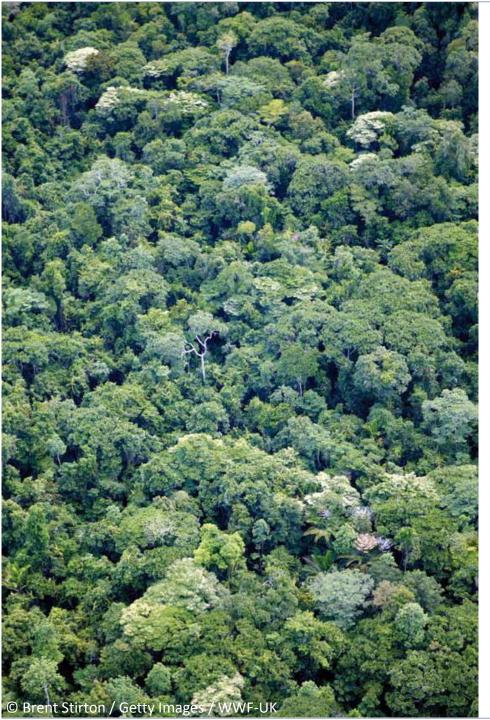
Canopy of the mossy montane rainforest in the Foja Mountain, north of the Mamberano River basin in West Papua. © Tim Laman, 2008

NEW GUINEA

New Guinea is the largest and most mountainous tropical island and one of the world's mega-diverse regions, constituting less than 0.5% of the global landmass, but home to 6–8% of the world's species. Half of these species are strictly endemic, which means they are found nowhere else and are entirely reliant on the continued existence of their habitat.

The island is home to 1,800 terrestrial vertebrate species, including more than 800 species of birds, and the highest diversity of arboreal marsupials in the world (38 species). It is also the home of 240 mammal species—4.5% of the world's total and 9 times the average global density of mammal species (with 62% being endemic).

New Guinea has the third-largest tract of rainforest in the world after the Amazon and the Congo. Two-thirds of the island is still covered with tropical forests.



'FINAL FRONTIER'

In the decade between 1998 and 2008 at least 1,060 new species were discovered in the island of New Guinea. Other species of flora and fauna may be lost before scientists have had a chance to examine them. In other words, innumerable species may become extinct even before they are 'discovered'.

This is one of the world's last tropical wildernesses but it is under increasing threat from industrial-scale logging, forest conversion for oil palm plantations, mining, built roads, population growth, agricultural encroachment, invasive species, climate change.

Dense rainforests in the interior are believed to support at least 21,000 plant species. It is estimated that a single square kilometre of lowland rainforest may contain as many as 150 species of birds.

Reefs around New Guinea have the most species of coral and reef fish in the world, but are under increasing pressure from unsustainable fisheries.

As tree lines advance upward, and the frequency of fires increase due to rising temperatures, species confined to the top of mountains face extinction.







Sentani Freshwater Sawfish (*Pristis pristis*)

The waters of Lake Sentani are home to such exotic creatures as the gigantic freshwater sawfish ... and tiny, jewel-like rainbow fish, both of which are unique to this body of water (Tim Flannery, 1998)

Sentani sawfish up to 3 metres were well known in the lake until the 1970s and are a common motif in traditional Sentani art, but appear to have been extirpated (locally extinct).





© Thomas Hörning

Sentani Rainbow fish (*Chilatherina sentaniensis*)

New Guinea has the highest diversity of rainbow fish in the world, but with the number of humans living along the shore of Lake Sentani rapidly increasing (25,000 in 1996) pollution from domestic waste entering the lake is a threat to the species living there, including the Sentani Rainbow Fish.

A further threat to these picturesque fish are the exotic species introduced to its habitat including carp, tilapia, walking catfish, barbs, and gouramies.

"Jayapura had become a truly Asian city. The town is unfortunately built around a creek which is now horribly polluted, resembling in sight and smell the filthiest open drain in Jakarta

Melanesians are loath to foul their waterways, and one rarely sees such a disgusting sight elsewhere in New Guinea" (Tim Flannery)





Blue-eyed Spotted Cuscus (Spilocuscus wilsoni)

The Blue-eyed Spotted Cuscus is endemic to the islands of Biak and Supiori in Cenderawasih Bay.

It is threatened by hunting and capture (for use as a pet) and rapid deforestation of suitable habitat.









National Museum of Natural History, Leiden.

Long-beaked Echidna (Zaglossus attenboroughi)

This smallest member of the *Zaglossus* genus was described in 1998 and named in honour of the legendary British naturalist Sir David Attenborough.

The species is known from a single specimen found in the Cyclops Range behind Jayapura in 1961 (*left*). An expedition in May 2007 found evidence of recent burrows and digging activity (but no sightings) and locals implied its continued existence.

Hunting by local people continues to be a major threat; as does the degradation of habitat by logging and expansion of small-scale agriculture.

Echidnas and platypus (monotremes) are the only mammals that lay eggs. There are only five species of monotremes in the world— three long-beaked echidna, one short-beaked echidna, and one platypus (only in Australia).



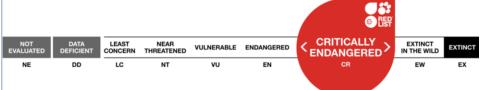


Western Long-beaked Echidna (Zaglossus bruijnii)

Recorded only in the Vogelkop Peninsula and adjacent land-bridge island of Salawati, where there is a clear correlation between habitat conversion or degradation and regional extinction.

Helgen et al. (2012) reported on a specimen collected in the Kimberley region in northwest Australia in 1901, where it persisted as a rare species until early in the twentieth-first century.







Wondiwoi Tree-kangaroo (Dendrolagus mayri)

The Wondiwoi tree-kangaroo has very limited distribution— perhaps 40 to 80 square miles, and is one of the most poorly known mammals in the world. "We know virtually nothing about it" (Mark Eldridge, Australian Museum in Sydney).

It is known only from a single adult male specimen collected by Ernest Mayr in 1928 in the Wondiwoi Peninsula of West Papua. Mayr, an evolutionary biologist, shot what became the only specimen known to science and sent its pelt to the Natural History Museum in London.







"The ultra-rare Wondiwoi tree kangaroo was last recorded by scientists in 1928 and researchers only had drawings like this to go on. It has now been photographed in a remote New Guinea range"

John Pickrell, National Geographic, 27 September 2018.

"Michael Smith, an amateur English botanist, spends vacations trekking in remote places on the hunt for rare orchids, rhododendrons, and tulips. He led an expedition cutting a path into near-impenetrable bamboo forests 5,000 feet high in the remote Wondiwoi Mountains of West Papua, with the aid of four Papuan porters, a local hunter acting as a guide, and Norman Terok, a student at the University of Papua in Manokwari and fellow natural history enthusiast

'The reason they remained unknown for so long is probably due to that bloody bamboo forest ... only an intrepid Pom in pursuit of rhododendrons would have persevered' (Roger Martin, James Cook University)

Smith hopes the find will lead to greater protection for a national park in the Wondiwoi Mountains. There is already a proposal for a gold mine in the park that would pose a threat to the area's unique wildlife".

National Geographic, 27 September 2018 British Amateur Botanist Discovers Kangaroo Species That Vanished for 90 Years: An intrepid explorer in pursuit of rhododendrons has found a Wondiwoi tree kangaroo, once thought to be extinct.

https://www.nationalgeographic.co.uk/animals/2018/09/british-amateur-botanist-discovers-kangaroo-species-vanished-90-years



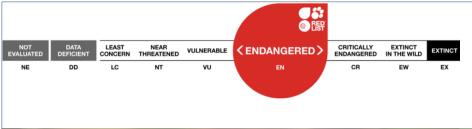


Golden-mantled (Weimang) Tree-kangaroo (Dendrolagus pulcherrimus)

This tree-kangaroo, whose scientific name means 'most beautiful tree hare', lives in the Torricelli Range in Papua New Guinea and the Foja Mountains in West Papua.

In PNG, the population is protected by a community conservation program managed by the Tenkile Conservation Alliance, which includes a hunting moratorium agreed to by 30 villages.







Waigeo Brushturkey (Aepypodius bruijnii)

In 2008 the Brushturkey of Waigeo Island was uplisted from 'Vulnerable' to 'Endangered'.

Biak Monarch (Symposiachrus brehmii)

Endemic to Biak and Numfoor Islands in Cendrawasih Bay; audio-recordings at https://www.xeno-canto.org/species/Symposiachrus-brehmii







© Lutz Obelgonner

The Blue speckled Tree Monitor has a fully prehensile tail, which is 2/3 of its body length, which allows them to grip branches and stay aloft in the forest canopy. On the ground they can coil their tails horizontally and use them as a defensive whip.

The rainforests they inhabit stay between 83 and 100°F all year round, with only a drop of 2–4 degrees at night.

Blue Speckled Tree Monitor (Varanus macraei)

Little is known about this lizard which measures up to a meter in length. It is endemic to West Papua's Batanta Island (an area of just 455 km² in the Raja Ampat Islands off the west coast) but is endangered as a result of over-collection for the pet trade (attracting up to \$1,500 each).

Export from Indonesia is increasing, with almost all likely to be supplied by wild-caught specimens that suffer high rates of mortality after capture.







Dingiso tree-kangaroo (Dendrolagus mbaiso)

Habitat of this black-and-white tree kangaroo is restricted to the sub-alpine heights of the Tembagapura and Kwiyawagi mountains.

Dingisio has undergone major decline in the eastern part of its range due to increasing human population and loss of habitat.

Changes in climate and agricultural practices pose a long-term threat.







Dingiso (Dendrolagus mbaiso)

'Dingiso' in the Moni language 'Nemenaki' in the Amungme language 'Wanun' in Western Dani

Mbaiso in the Moni language means 'the forbidden animal' ... a tribute to the traditional Moni conservation practices which have been crucial in allowing the Dingisio to survive to the present... it remains common in Moni territory in the highlands because many clans revere it as an ancestor and refuse to hunt it." (Tim Flannery *Throwim way leg* 1998)





Giant Wattled Honeyeater (*Macgregoria pulchra*) in Star Mountains on border between West Papua and Papua New Guinea. © Johannes Gerardus Keulemans (1842—1912) a celebrated Dutch bird illustrator.

Some of the Vulnerable birds in West Papua

Biak Scops-owl Southern Cassowary Northern Cassowary Moluccan Scrubfowl Biak Scrubfowl

Salvadori's Teal (Salvadorina waigiuensis)

Western Crowned Pigeon
Eastern Curlew
Great Knot

New Guinea Harpy-Eagle New Guinea Vulturine Parrot Kofiau Paradise-Kingfisher Black-winged Lory

Giant Wattled Honeyeater (Macgregoria pulchra)
Grey-banded Mannikin
Fly River Grassbird
Kofiau Monarch
Black Sicklebill





Western Crowned Pigeon (Goura cristata)

Lives in the Vogelkop Peninsula and Raja Ampat Islands (Misool, Waigeo, Salawati, but might be extinct on Batanta).

Rapid population decline from hunting (food and plumes), trade (as a prized aviary) and loss of forest habitat from extensive logging, oil, and mineral concessions and transmigration schemes (which also increase access for hunters).







Papuan Eagle (Harpyopsis Novae Guineae)

A very large (75-90 cm) powerful eagle, widely distributed in New Guinea.

Largely absent from areas of cultivation around villages, and where suitable prey has been hunted out.

Hunted for its tail and flight feathers which are used in ceremonial head-dresses, especially in the highlands.

Habitat is being slowly lost to subsistence gardens, infrastructure projects and logging.

Scan of hand-coloured lithograph of New Guinea Harpy Eagle by William Hart for John Gould's final work "Birds of New Guinea and the Adjacent Papuan Islands, including many new species recently discovered in Australia" (1875—1888).





Eastern Long-beaked Echidna (Zaglossus bartoni)

Lives in the central mountains of New Guinea, and is the largest egg-laying mammal in the world. Highly susceptible to human predation. Trained hunting dogs can detect and follow them to their daytime retreats, even in densely forested habitat.

Forest wildfires at higher elevations during prolonged drought threaten their upper montane forest habitat, a threat amplified if climate change increases the frequency or severity of fires.







Seri's Tree Kangaroo (*Dendrolagus stellarum*)

The Seri tree kangaroo is endemic to the Central Cordillera of New Guinea, ranging from the Tembagapura area of West Papua to the Victor Emmanual Range in western Papua New Guinea. It is threatened by heavy hunting for food, and populations were impacted by fires during The El Niño period in 1998-1999.

Very young animals have a bright yellow tail and dark body. As they age the tail darkens and the distinctive silvery tip develops on the limbs. The silver-frosted colour of adults blends well with the epiphytic mosses and lichens of the upper montane forest.







Grizzled Tree Kangaroo (*Dendrolagus inustus*)

There are two distinct but similar subspecies: *D. inustus inustus* in west New Guinea on Japen Island and the Vogelkop and Fakfak peninsulas; and *D. inustus finschi* (Finch's tree-kangaroo) along the north coast ranges of New Guinea island.

Both are threatened by heavy hunting for food, and by habitat loss and degradation through the conversion of forest to small-scale agricultural use and large-scale oil palm plantations.

The Tenkile Conservation Alliance based in Wewak (PNG) works with local villages to monitor, conserve and research tree kangaroos.







Vogelkop Tree-kangaroo (*Dendrolagus ursinus*)

"... [IT] ALSO ATE RICE, BREAD AND VEGETABLES, CLIMBING OFTEN ON THE KNEES OF THE GUESTS AT DINNER TIME, BEGGING FOR FOOD. THE ANIMAL WAS A NICE PET; MR BISCHOFF'S DOGS WERE ITS PLAYMATES (F.W. RAPPARD REPORTING ON MR BISCHOFF'S PET TREE-KANGAROO AT MANOKWARI, DUTCH NEW GUINEA, DURING THE 1950s).

This uncommon species is endemic to New Guinea; where it's been eliminated from the more densely populated parts of the Arfak Mountains, and is restricted primarily to uninhabited parts of the Vogelkop Peninsula. In the last 60-70 years it has lost a significant portion of its range.







The Victoria Crowned Pigeon's glorious white-tipped crest distinguishes it from the two other species— Western crowned pigeon (Goura cristata) and Scheepmaker's crowned pigeon (Goura scheepmakeri).

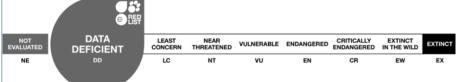
Victoria Crowned Pigeon (Goura victoria)

Largest pigeon in the world (74cm) and prized by hunters for its flesh and feathers.

Threatened in lowland forests—particularly on the flat terrain favoured by this species—by selective logging (which also opens up access to hunters) and the development of oil palm plantations.

Extirpated from the vicinity of some transmigration settlements where it had survived constant hunting by local indigenous people. Elsewhere it persists close to habitation and close to hunters.







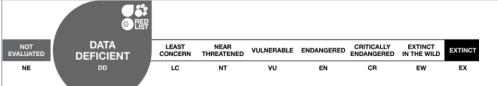


Gecko (Cyrtodactylus irianjayaensis)

Endemic to lowland forests on Salawati Island in the Birdshead. No population information available, but threatened by the pet trade and forest degradation.





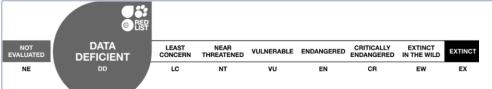




Moths collected by a multi-disciplinary team of scientists in the foothills of the Foja Mountain in West Papua in 2008. High-quality photo-report: https://www.nationalgeographic.com/magazine/2010/06/foja-mountains/

Invertebrates (without a backbone, like butterflies, slugs, worms, spiders).

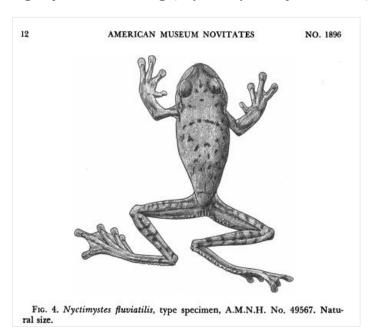
Scientists predict that there are at least 200,000 species of di in New Guinea, although very little is yet known about them.





Foja Mountain 2008, © Tim Laman

Big-Eyed Tree Frog (Nyctimystes fluviatilis)





PUBLISHED BY THE AMERICAN MUSEUM OF NATURAL HISTORY CENTRAL PARK WEST AT 79TH STREET, NEW YORK 24, N.Y.

NUMBER 1896

JULY 22, 1958

Results of the Archbold Expeditions. No. 78 Frogs of the Papuan Hylid Genus Nyctimystes

By Richard G. Zweifel





Dani highlander © Magda Zewelska

Genocide in West Papua

In 2012, the Tampoto tribe in Skow Mabo village, Jayapura, was on the brink of extinction, with only a single male in his twenties still living. The Dasem tribe in Waena area, near Jayapura, is also near extinction, with only one family still alive. A decade ago, the Sebo tribe in the Kayu Pulau region of Jayapura Bay, died out.

In August 2005, a report by John Wing and Peter King for the West Papua Project at the University of Sydney, and the ELSHAM Human Rights Centre in Jayapura concluded:

"Serious threats to the survival of the indigenous people of the Indonesian province of Papua, including large scale military campaigns decimating highland tribal communities, the HIV/AIDS explosion, and persistent Papuan underdevelopment in the face of a rapid and threatening demographic transition in which the Papuans face becoming a minority in their own land

.... [a] 'culture of impunity' exists in Indonesia which sees its highest manifestation in Papua. Military operations have led to thousands of deaths in Papua and continue to cost lives, yet the Republic's armed forces act as a law unto themselves with no real accountability for crimes against the Papuan population, including the involvement of Indonesian security forces in illegal logging."





George Monbiot

"The fight for democracy and justice and the fight against environmental breakdown are one and the same.

Do not allow those who have caused this (climate) crisis to define the limits of political action.

Do not allow those whose magical thinking got us into this mess tell us what can and cannot be done."

Stuart Rollo

"Pressure from the international community changed the concept of an independent East Timor from a dream into reality in less than a decade.

Australia's government should give heed to this historical parallel, and begin work to reverse the betrayals which Australia has so pragmatically inflicted on the West Papuan people.

It could start by apologising for its historical role in arming Indonesia's repressive military, and reaffirming support for freedom of speech within Australia's borders.

The potential for instability in both West Papua and Indonesia as a result of independence is real, but the stabilisation of both states as they transition is not beyond the capabilities of a resolute international community."

JACOB RUMBIAK, Minister for Foreign Affairs, Federal Republic of West Papua.

Political power has limits, but grassroots people power does not. Today the West Papua struggle stands on two feet: people power and the political movement. It's not just an independence struggle.

Our people power has seven elements: the tribal councils, religious groups, the womens movement, student movements, Indonesian people for West Papua, the NGOs, and the international community, which is you".

