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The Endangered Species Act at 40: Species Profiles

PALAU FANTAIL FLYCATCHER, PALAU OWL, AND PALAU GROUND DOVE

PALAU FANTAIL FLYCATCHER
(*RHIPIDURA LEPIDA*)

PALAU GROUND DOVE
(*GALLICOLUMBA CANIFRONS*)

PALAU OWL
(*PYRRHOGLAUX PODARGINA*)

Range:

Historic: The former U.S. Trust Territory of Palau (an archipelago in the western tropical Pacific), which is now an independent nation.

When listed: Same as historic.

When delisted: Same as historic.

Listed status: Endangered, [35 FR 8495], 6/2/70, and then carried over to the ESA.

Current status: Recovered, [50 FR 37192-37194], 9/12/85.

Reason for listing: Population decrease due to habitat destruction associated with fighting during World War II.

Population:

Historic: Unknown, but assumed to be roughly that when delisted.

When listed: Unknown, but probably close to when delisted.

When delisted: Dove-approximately 500, Owl-at least 12,000, Fantail-Unknown but one of the most common forest birds of Palau.

CLAIMS THAT THE PALAU FANTAIL FLYCATCHER, PALAU OWL, AND PALAU GROUND DOVE ARE ESA SUCCESS STORIES

1) The Palau owl, dove, and fantail flycatcher are three of the twenty-one species the U.S. Fish and Wildlife Service (FWS) claims as recovered due to the ESA.[1]

2) The Palau owl, ground dove, and fantail flycatcher are three of the "100 Success Stories for Endangered Species Day 2007"—Center for Biological Diversity.[2]

3) "In 1985 the Service pronounced three bird species recovered, and removed them from the endangered species list. Only 12 species have been delisted under the ESA to date, and the delisting of the Palau fantail flycatcher, Palau ground-dove, and Palau owl represents the first species delistings due to recovery."—Defenders of Wildlife[3]

4) "[D]elisted due to successful recovery."—National Academy of Sciences[4]

5) "Both statements are purest nonsense. Several species have been delisted completely including...the Palau dove."—Randall Snodgrass, then Director of Wildlife Issues for the National Audubon Society and currently Director of Governmental Affairs, World Wildlife Fund U.S., responding to two statements, one of which, by Ike Sugg, then of the Competitive Enterprise Institute, was that as of 1995 no species had been delisted due to recovery.[5]

6) All three species have been labeled by the FWS as "Endangered Species Act success

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[1] U.S. Fish and Wildlife Service ND,Threatened and Endangered Species System (TESS).

[2] Center for Biological Diversity 2007b.

[3] Fitzgerald and Meese 1986, p13.

[4] "Only six species have been delisted due to successful recovery: the Palau dove, Palau owl, Palau flycatcher, the Rydberg milk-vetch, the Atlantic coast population of the brown pelican, and the gray whale" (National Research Council 1995, p.197).

[5] Watkins 1996, p.40.

stories."[6]

7) "[I]n 1985…a record four species were removed from the endangered and threatened species list because they recovered to the extent that they no longer require such protection…The Palau fantail flycatcher, the Palau ground-dove, and the Palau owl—all residents of the tiny Palau Islands of the Caroline Islands group in the western Pacific—left the protected list this year."—U.S. Fish and Wildlife Service[7]

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[6] In a publication titled "Endangered Species Act Success Stories," the FWS states, "While restoring a species to the point where it no longer requires the protection of the Endangered Species Act is the eventual goal of recovery programs, a primary objective in the recovery process is stabilizing populations and halting their decline. A major commitment in time and resources often is necessary for that to happen. Success Stories in the recovery program, whether they be reclassifications from endangered to threatened status, removal from the list (delistings) or significant steps toward achieving species' recovery, are numerous. Highlights of these Success Stories are included in the following pages."

Dove - "The Palau ground dove was removed from the endangered species list in 1985 after a determination that island populations, depressed in 1945, had rebounded to more than 500, which is thought to be near the level before the arrival of man. The Service delisted the dove because there were no imminent threats to the species and the dove's small size, inaccessible habitat and secretive nature make it unlikely to be hunted as a game species."

Flycatcher - "The Palau fantail flycatcher is distributed uniformly throughout its former range and found on all the major and many of the smaller islands in Palau. The fantail was common in the 1800s, rare by 1931 and uncommon in 1945 on islands damaged during World War II. The bird made a big comeback by 1979 and is now most common in Peleliu. The Palau fantail flycatcher was removed from the list in 1985 and the current population estimates exceed 27,000."

Owl - "The Palau owl was always reported as common, though a decline reported in 1945 continued after the end of World War II. An effective program reduced the rhinoceros beetle population, an introduced species, which killed owls when ingested. Only four pairs of this bird were reported in 1945. By the 1960s, the owl had begun to increase in significant numbers. Today, more than 10,000 are thought to inhabit the archipelago. The owl was removed from the list in 1985, and populations appear to be stable." (U.S. Fish and Wildlife Service 1995a, p.2).

[7] U.S. Fish and Wildlife Service 1986a.

CONSERVATION OF THE PALAU OWL, PALAU GROUND DOVE, AND PALAU FANTAIL FLYCATCHER

INTRODUCTION

The Palau owl, Palau ground dove and Palau fantail flycatcher are species of birds endemic to Palau, an archipelago in the tropical western Pacific. All three species are clearly cases of data error. This means that these species never should have been listed under the ESA because their populations were too numerous and secure to merit protection. The Palau owl, ground dove, and fantail flycatcher are the first three species to be claimed by the FWS as recovered over their entire range.

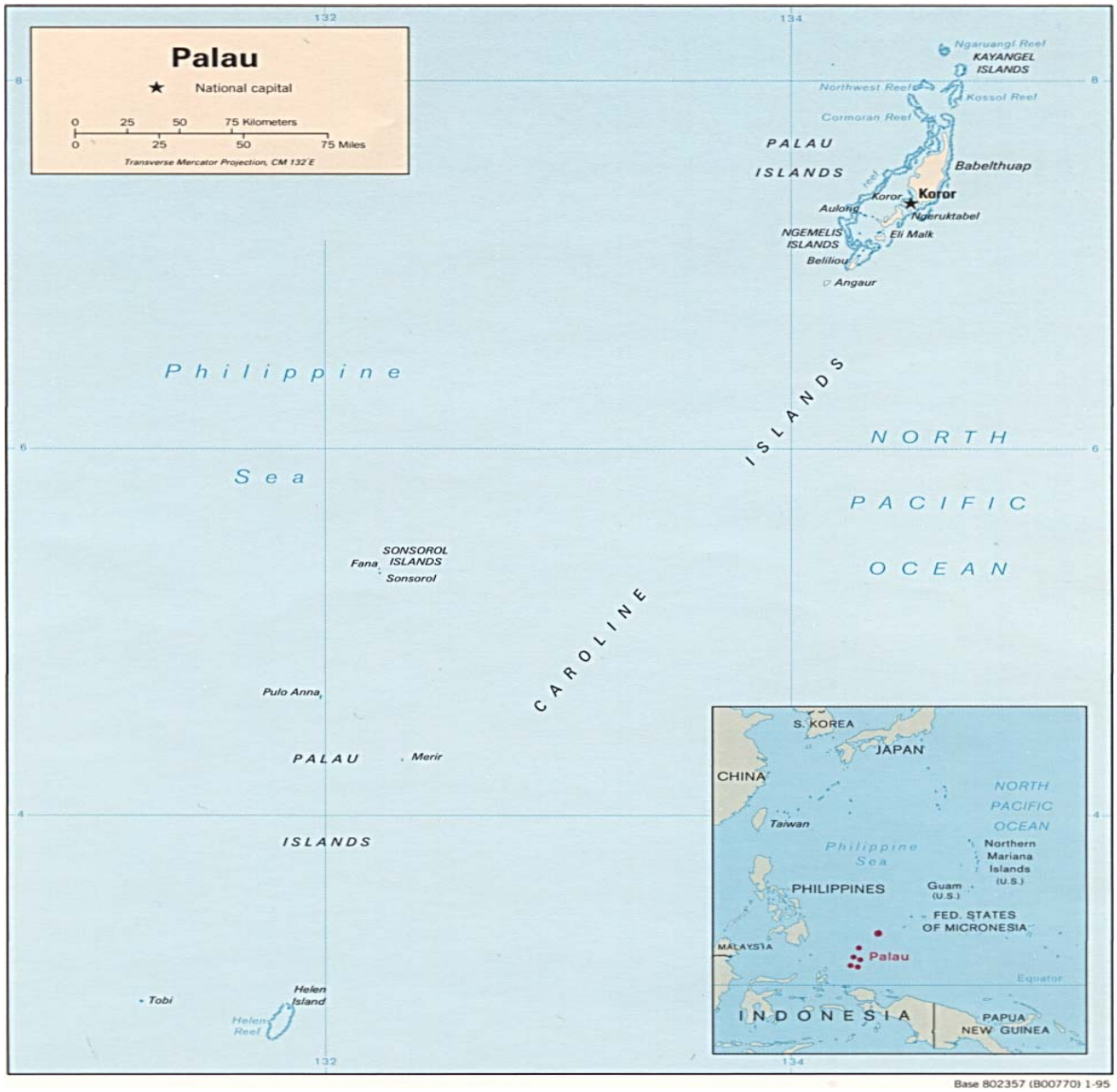
The Palau archipelago is part of the vast collection of islands that are often referred to as Micronesia, with the Marshall Islands in the east, the Mariana Islands to the north, and Palau in west. Palau lies 550 miles east of the Philippines and 400 miles north of Irian Jaya, the Indonesian portion of the island of New Guinea. Portions of the Palau archipelago were the site of heavy fighting during World War II. Not surprisingly, the islands where fighting occurred were devastated, including the flora and fauna. But fighting only occurred on a small portion of these islands, which means the populations of these birds, especially the fantail and owl, in all likelihood did not suffer appreciable declines due to World War II.

The ESA's jurisdiction over these three birds stems from Palau's status following the war. In 1947 the United Nations granted the U.S. trusteeship of Palau as part of the Trust Territory of the Pacific Islands (TTPI), hundreds of islands contained in a an area the shape of a triangle and which stretched some 3,000 miles, from the Marshall Islands in the east, to Palau in the west, and with the Northern Mariana Islands some 850 miles north-northeast of Palau. In 1951, President Truman gave the U.S. Department of Interior responsibility to administer the Trust Territory.[8] As a Trust Territory, Palau was subject to U.S. laws including the ESA. Even though the islands became self-governing in 1981, they were still subject to U.S. law when the FWS delisted the species in 1985. Palau continued to be subject to U.S. law until it because an independent nation in 1994.

There are five main issues about the owl, ground dove and fantail that will be discussed

[8] Commonwealth of the Northern Marianas Islands, ND.

in this profile. First, these three birds are clearly cases of data error. Second, the process by which the FWS listed these birds provides insight into how and why they were erroneously listed. Third, listing was likely heavily influenced by political factors. Fourth, the FWS delayed delisting for political reasons. Fifth, essentially no conservation under the auspices of the ESA occurred for these birds despite FWS claims to the contrary.



Map obtained from CIA Reference Maps, 1995

DATA ERROR

The Palau owl, Palau ground dove, and Palau fantail flycatcher are clearly cases of data error because at the time of the ESA's passage in 1973 they were too numerous to merit the Act's protection. When the FWS delisted these birds 1985, the agency all but admitted that data error was the reason why they no longer qualified for the ESA's protection:

"All three species appear to have recovered on islands damaged during World War II. The original status information was meager and more recent and complete information is now available. These three Palau species are presently distributed throughout their former habitat and have stable populations that survive at or near their respective carrying capacities. Thus, they no longer meet the definitions of threatened or endangered species.

Even though the owl, flycatcher and owl are clearly cases of data error, the FWS has never explicitly admitted this is the reason for delisting these birds. Yet if the FWS's admission above does not qualify as data error, this raises two questions; what would qualify as data error, and whether the FWS's definition of the category has any meaning.

The reason these three species are cases of data error has to do with World War II. Palau was the sight of the primary Japanese base for the southern Pacific, and the U.S. invaded a portion of the base in September 1944. However, the U.S. limited the invasion to the two southernmost of the main islands of the archipelago, Angaur and Peleliu. The predictable result of the ferocious battle, especially on Peleliu (identified on the map on p.189 as Belilou), was that much of the vegetation on these two islands was destroyed or severely damaged, as was much of the fauna, including the owl, ground dove, and fantail populations on these islands. In the aftermath of the battle, parts of Peleliu in particular resembled the "moonscape" that many of the Pacific islands—such as Guadalcanal, Truk, and Iwo Jima—did after they, too, were the sites of fierce battles during World War II

After the war, as the vegetation on Angaur and Peleliu gradually returned, populations of the owl, ground dove and flycatcher on these islands increased. On most of the other islands of Palau, especially Babelthuap, by far the largest island, and many of the medium and small islands between Peleliu and Babelthuap, comparatively little habitat destruction associated with

World War II occurred. So it is fairly certain that even in the immediate aftermath of the war, these three birds, with the possible exception of the ground dove, had large and healthy populations.

By the time the FWS listed the owl, ground dove and flycatcher under the ESA all available evidence indicates the populations of these birds were large and secure enough that they did not merit the Act's protection. The FWS and ESA had nothing to do with these birds' recovery. After all, the ESA or FWS had nothing to do with the revegetation of Angaur and Peleliu; this occurred gradually over the nearly thirty years between the end of the World War II and when the agency listed these birds under the Act. A report by the Government Accountability Office, then known as the General Accounting Office (GAO), recognizes the ESA had nothing to do with the rebound of these birds; "According to FWS officials, although officially designated as recovered, the three Palau species owe their 'recovery' more to the discovery of additional birds than to successful recovery efforts."[9] While the GAO is wide of the mark—"recovery" occurred because these birds had large and healthy populations by the time the ESA rolled around, not because of the discovery of additional birds—the overall point is that just about any objective person or organization that bothers to look into these birds' tenure under the ESA comes to conclusion that their delisting is due to data error.

Even supporters of the Act admit these birds are cases of data error. "We agree…that…the Palau Ground-Dove (*Gallicolumba Canifrons*), Palau Fantail (*Rhipidura Lepida*), [and] Palau Owl (*Pyrrhoglaux Podargina*)…were delisted not because their status had improved but rather because new data suggested that they probably never met the standard for listing," assert Holly Doremus, professor of law at the University of California-Davis and Joel Pagel, then graduate student in ecology at UC-Davis and longtime peregrine falcon expert for the U.S. Forest Service.[10] It is, however, misleading to claim "new data" indicated these birds are cases of data error. As will be discussed below, in the section titled "Listing," the data on which the FWS based the listing of these birds in 1970, and subsequently carried them over to the ESA upon the Act's passage in 1973—surveys carried out in the aftermath of World War II on Angaur and Peleliu, not all of the islands—were so limited geographically that it was simply not possible for the FWS to claim that these birds were imperiled over the entire archipelago.

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[9] General Accounting Office 1988, p.18.

[10] Doremus and Pagel 2001, p.1263.

The evidence about the post-World War II increase of the owl, ground dove and fantail, especially on Peleliu and Angaur, is so clear that the FWS basically concedes this. In the announcement of the birds' so-called recovery due to the ESA, the agency stated; "These Pacific atoll dwellers were nearly wiped out amid the heavy combat in their habitat during World War II. Since the war's end, they have slowly rebounded, as life has returned to normal." [11] Note that the FWS fails to specify the limited geographic nature of the habitat destruction. A closer look at each one of these species sheds more light on why they are cases of data error.

FLYCATCHER

Prior to, during, and after World War II, the fantail flycatcher was likely one of the most common birds in Palau. By the late 1970s experts considered the fantail common on Babelthuap, by far the largest of the archipelago's islands, three of the other medium sized islands, and abundant on Peleliu, the island most devastated by the war.[12] "Surveys carried out by the TTPI [Trust Territory of the Pacific Islands] Conservation Office in 1978-79 found the fantail to be common on all the major islands," stated two of the leading experts on the birds of Palau, John Engbring, the FWS biologist who wrote the 1985 proposal to delist the three Palau birds, and H. Douglas Pratt, one of the world's leading authorities on the birds of the Pacific islands, a staff research associate at Louisiana State University's Museum of Natural Science, and one of the world's foremost painters of birds. "It is now most abundant on Peleliu, whose vegetation was almost completely destroyed during World War II," added Engbring and Pratt. "The Palau Fantail is thriving and under no threat of extinction."[13] In a separate peer reviewed article published in 1980 Pratt, Engbring and two colleagues concluded that the "Palau Fantail has no place among the Endangered Species."[14]

[11] U.S. Fish and Wildlife Service 1986a.

[12] Pratt et al., 1980, p.119.

[13] Engbring and Pratt 1985, p.97.

[14] Pratt et al., 1980, p.126.

GROUND DOVE

As for the dove, "[n]umbers have apparently increased since World War II, when hostilities on Peleliu and other limestone islands destroyed much of the forest habitat," according to Engbring and Pratt.[15] Surveys conducted from 1977-1979 estimated a total population of 500 birds.[16] When delisting occurred, the FWS stated that the estimated population of 500 "is thought to be near the level before the arrival of man on these islands."[17] If the dove's population by the late 1970s was at or near the maximum population of 500, it is reasonable to infer that the population by the time of the ESA's passage in 1973 was likely at or near 500 as well because it is very unlikely the population experienced a substantial population increase over six years.

OWL

The story of the owl is similar to that of the flycatcher. Results from the 1977-79 surveys, which were published in a peer reviewed journal, found the owl to be "abundant throughout the archipelago." Furthermore, "We have on several occasions heard as many as five birds calling simultaneously. Clearly the density of *Pyrrhoglaux* is much greater than that of any mainland owl species with which we are familiar."[18] In 1985 Engbring and Pratt published a summary of previous surveys as well as incomplete results from more recent surveys. They noted, "Since the 1960s the Palau Owl has apparently increased in numbers…Surveys by the TTPI Conservation Office in 1978 revealed a density of 27/sq. km. and a total population estimated at 12,000."[19] The increase since the 1960s, which will be discussed below in greater detail, was due to factors totally unrelated to the ESA.

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[15] Engbring and Pratt 1985, p.91.

[16] Engbring and Pratt 1985, p.91.

[17] U.S. Fish and Wildlife Service 1985b, p. 37193

[18] Pratt et al., 1980, p.124.

[19] Engbring and Pratt 1985, p.93.

LISTING

An examination of the circumstances under which the FWS listed the owl, fantail and ground dove under the ESA, and the data used to support listing, explains much about how and why the agency listed these birds erroneously. There are five factors surrounding the listing of these birds that will be examined; the geography and geology of Palau, these birds' habitats and ranges, the spatial distribution of habitat destruction, the data on which the three birds were listed, and ESA politics.

GEOGRAPHY AND GEOLOGY

In order to understand how the FWS listed these birds in error, it is necessary to understand Palau's geography and geology. The main group of islands—the islands on which the three birds live and which constitute some 99% of the land area of Palau—stretch approximately 70 km. in line that runs roughly north to south. The islands where the heavy fighting occurred during WW II, Angaur and Peleliu, are the two southernmost of this main group. Angaur is some 8 km.^{2} in area, and Peleliu 17 km.^{2}.

Moving northward from Angaur and Peleliu, there are five islands of roughly the same size range (from south to north the approximate area of these islands is 8 km.^{2}, 19 km.^{2}, 4 km.^{2}, 4 km.^{2}, and 9 km.^{2}). Interspersed among these five larger islands are over 200 "rock islands," so named because at the waterline the limestone that serves as their base has been eroded, leaving no beach or shoreline, just islands and islets covered with dense forest of nearly impenetrable vegetation.[20] Due to their small sizes, dense vegetation and general lack of beaches, the rock islands have always remained essentially uninhabited.

The two northernmost of the group of five islands, plus another small island of about 1 km.^{2}, are commonly referred to as the Koror group after the island of Koror. These islands contain the major areas of human settlement, including Palau's capital, which constitute 70% of Palau's population. To the north of these islands lies Babelthuap, which is by far the largest island, at approximately 367 km.^{2} and 88% of Palau's land area

[20] Engbring and Pratt 1985, p.82.

The geology of the islands of Palau follows a general pattern. Almost all the islands from Angaur in the south to Koror in the central part of the archipelago consist of coralline limestone, which, as its name implies, is a combination of corral and limestone. About half of the islands of Koror group and Arakabesan, one of the islands adjacent to Koror Island, and all but a miniscule portion of Babelthuap, are composed of volcanic soil and rock.[21]

The salient point of all this in terms of the owl, fantail and ground dove is the heavy fighting during World War II that devastated native fauna and flora occurred almost exclusively on the two islands of Angaur and Peleliu which constitute a relatively small portion of the habitat for these birds. A 1987 vegetation survey by the U.S. Forest Service found that 50% of Peleliu, 68% of Angaur, and 25% of Babelthuap consisted of secondary vegetation, which was primarily due to re-growth following the Japanese tenure which included the war. Angaur and Peleliu together constitute a relatively small portion of Palau, roughly 7.0% of the total land area and 10.0% of Palau's forest habitat, and hence a small portion of these birds' habitat.[22] Almost the entire available habitat for these birds on the coralline islands between Peleliu and the Koror group was impacted very little by human activities because of these islands' inhospitable nature. In addition, much of the available forest habitat on Babelthuap was left intact because human activities, which consisted primarily of sugarcane cultivation, impacted very little of the island.

The upshot is that the supposedly devastating impact of World War II on these three birds was, to a significant degree, a function of observer bias. That is, the people who reported these birds as rare tended to confine their observations to Angaur and Peleliu in the immediate aftermath of the war. Not surprisingly, these people reported the birds were very scarce. However, if these same people had bothered to venture north of Angaur and Peleliu, they likely would have found healthy populations of all these birds.

RANGES AND HABITAT UTILZATION

Another factor that played a role in the listing and conservation of the owl, flycatcher and owl is their ranges and they types of habitat they utilize. Engbring and Pratt note that Palau is

[21] Cole et al., 1987, p.2.

[22] Cole et al., 1987, pp.2,5.

unusual in that, as of 1985, none of its endemic bird species had gone extinct despite habitat destruction and degradation associated with agriculture and World War II. "The survival of such a diverse island bird community is remarkable and may be related to the physiography of Palau. The southernmost islands (known as the 'rock islands') are coralline rubble overgrown with dense, virtually impenetrable forest that is essentially uninhabitable; they for a *de facto* refuge."[23] A brief examination of the habitat and islands utilized by the fantail, ground dove and owl sheds more light on the issue of habitat utilization and range.

FLYCATCHER

The fantail appears always to have been common and widespread. The fantail inhabits forests and brushy undergrowth on both the volcanic and coralline limestone islands throughout the larger islands of the archipelago.[24] Only in the aftermath of World War II on Angaur and Peleliu does the fantail appear to have been uncommon or even rare.

GROUND DOVE

In all likelihood the ground dove has always uncommon due to its habitat requirements. Most of the dove's population is on the larger coralline islands, but of the population exists on the small rock islands as well as a few on the volcanic islands. "The many limestone islands that constitute the primary range are a *de facto* refuge," concluded the FWS.[25]

OWL

The owl is similar to the fantail in that it was historically a widespread and relatively common forest dwelling bird. As with the fantail, World War II impacted the owl most on Angaur and Peleliu. The war did not affect the vast majority of the owl's habitat. It appears, however, that the owl may have been in decline prior to and after the war due to the introduced coconut rhinoceros beetle that infested coconut plantations. Apparently owls preyed on these beetles and swallowed some whole, but because the insects had such powerful mandibles they

[23] Engbring and Pratt 1985, p.82.

[24] Engbring and Pratt 1985, p.83.

[25] U.S. Fish and Wildlife Service 1985b, p.37193.

were able to eviscerate owls and kill them. In the 1960s, in response to the coconut beetle infestation, the U.S. initiated a program to control the betters. The program was successful and by the later 1960s the beetle infestation was under control. As a result, the owl's population began to increase.[26] Since then the owl has become relatively common and widespread.

SPATIAL AND TEMPORAL DIMENSIONS OF HABITAT DESTRUCTION

As with the distribution of these three birds species, the destruction and degradation of their habitat had distinct temporal and spatial dimensions that helps explain how these birds are cases of data error. Following World War I, the Japanese, under the auspices of the League of Nations, took possession of Palau. As with much of their expanding empire, the Japanese treated Palau as a source of commodities, with the result that large parts of the islands were devoted to agriculture, primarily sugarcane but also pineapple and coconut. Sugarcane production was concentrated on the volcanic islands, primarily Babelthuap due to its large size, because of their fertile soils. When the FWS delisted these birds, forest constituted 75% of the Babelthuap's surface area so large amounts of suitable habitat for the owl and fantail remained untouched by agriculture. Some agriculture, primarily sugarcane, also occurred on Peleliu. On Angaur phosphate mining took place.

Overall, however, significant amounts of habitat for the bird species remained on the islands of Palau, especially on Babelthuap, but also on a good number of the coralline islands. This meant that the owl, fantail and ground dove were able to survive the agriculture related habitat destruction and degradation that occurred prior to World War II

When the U.S. invaded Angaur and Peleliu in September 1944, heavy fighting, especially on Peleliu, devastated these two islands. Given that the fantail and owl were relatively common and widespread, it appears that their population decline associated with war was confined primarily to Peleliu and Angaur. In the case of the ground dove, as noted above, its preferred habitat, the coralline limestone islands, protected it from much of the impacts of agriculture and World War II. Surveys carried out in the 1970s found the dove had its largest populations on two of the coralline islands between Peleliu and Koror, Eil Malk (8 km.^{2}) and Urukthapel (19

[26] Pratt et al., 1980, p.124.

km.^{2}).[27] It is reasonable to assume that the distribution and relative abundance of the dove revealed by these surveys was essentially the same in the immediate aftermath of World War II. Therefore, it is very likely the dove was able to survive the war with a healthy and viable population.

In 1985 when the FWS delisted the three birds, the agency admitted that Robert Owen, the former Chief of the Trust Territory Conservation Office, "first went to Peleliu and Angaur in 1949, 5 years after the invasions and 4 years after the military survey. Native bird life was still scarce compared with the rest of Palau and the destroyed vegetation was just beginning to recover. He visited these islands in the following years, and believes that the vegetation and bird life have returned to normal."[28] Note that the only islands mentioned are Peleliu and Angaur, which constitute only a small fraction of the three birds' habitat. If these birds had "returned to normal" on Peleliu and Angaur in the years following the war then it is a virtual certainty the birds had healthy populations on the other islands that contained most of their habitat. The implication of the FWS's statement is that Robert Owen, an Interior Department employee and the person with the most knowledge of these birds in the aftermath of World War II, considered these birds to "have returned to normal." Despite this, as well as all the available evidence indicating these birds had healthy populations, the FWS listed the owl, dove and flycatcher under the ESA.

DATA ON WHICH THE FWS BASED LISTING

The FWS listed the owl, dove and flycatcher based on data that only pertained to the islands of Angaur and Peleliu. According to the FWS, Robert Owen "stated that the original listing was based on surveys of southern Palau completed by military ornithologists a short time after the U.S. forces had invaded Angaur and Peleliu. These invasions caused serious destruction of the vegetation and wildlife. No surveys were made of central or northern Palau at the time because those islands were still being held by the Japanese forces."[29] Even though the FWS admitted this in 1985 when delisting occurred, this same information was published in

[27] Pratt et al., 1980, p.118.

[28] U.S. Fish and Wildlife Service 1985b, p.37193.

[29] U.S. Fish and Wildlife Service 1985b, p.37193.

1980 in a peer reviewed journal article. "The inclusion of these birds in the Federal list was apparently based on published accounts shortly after the cessation of World War II (Marshall 1949, Baker 1951) when avian habitats had been severely disturbed by battle (Baker 1946)," stated Pratt *et al*.[30] In 1985 Engbring and Pratt published a more detailed explanation:

"Decisions as to which species [in Micronesia, which Palau is part of] should be given special protection were based mainly on reports of 19th and 20th century expeditions and on reports by American servicemen during and after World War II, especially those of Marshall (1949) and Baker (1951). These accounts dealt primarily with systematics and distribution, with little attention to natural history. Reports of status, mostly based on observations made immediately after World War II, when ecological havoc in these islands was severe (Baker 1946), were not updated for at least 30 years in most cases. Thus, several species now listed as Endangered are actually common, while other unprotected species are rare…"[31]

A close examination of the literature the FWS cites as the basis for listing the three Palau birds reveals that the agency mischaracterized and misrepresented this literature.

FLYCATCHER

According to the FWS, the fantail was "rare in 1931 (Coultas *in* Baker, 1951), and uncommon in 1945 on islands damaged by World War II (Baker, 1951)."[32] An examination of the publication by Baker reveals that it did not specify the islands Coultas visited, just the following; "Coultas (field notes) found the bird to be rare and restricted to the true forest, when he visited the Palau Islands in 1931."[33] According to Baker, he "found the Palau Fantail in small numbers at Peleliu, Garakayo and Ngabad" in 1945.[34] He also added; "It is my opinion that the small populations of *Rhipidura*, as I have observed them in Micronesia, are small because each individual or pair of birds is dependent on a relatively large area of woodland to satisfy its

[30] Pratt et al., 1980, p.119.

[31] Engbring and Pratt, 1985, p.71.

[32] U.S. Fish and Wildlife Service 1984f, p.36666; U.S. Fish and Wildlife Service 1985b, p.37193.

[33] Baker 1951, p.267.

[34] Baker 1951, p.267.

habitat requirements, especially for food."[35] Baker, however, limited his observations to Peleliu, the island most devastated by World War II fighting, and two other islands where fighting also occurred. But these two other islands were relatively small—Garakayo, now known as Ngaregeu or Ngergoi, about 1 km.^{2}, and Ngabad, about 0.5 km.^{2}—and contained very little of the fantail's total habitat.

In a crucial omission, the FWS does not cite the publication by Joe Marshall, a navy biologist who spent a year, December 1944 to December 1945, in Palau and the Mariana Islands and published the results of his surveys in *The Condor*, a highly respected ornithological journal.[36] While Marshall did not provide a population estimate specifically for the fantail, he did compare its relative abundance to that of the Tinian monarch, a very closely related species that lives on the island of Tinian in the Marianas. "The Tinian monarch (*Monarcha takatsukasae*), endemic on Tinian, is present in about equal numbers with *Rhipidura* [the fantail] in woodland, but it reaches its peak abundance…", observed Marshall.[37] The use of the term "peak abundance" indicates that the monarch was probably relatively common. So if the fantail was about as abundant as the monarch, then it, too, must have been relatively common.

GROUND DOVE

The sole source provided by the FWS for the ground dove's listing is Baker's 1951 publication. "A minimum of 15 birds was estimated to remain on Peleliu in 1945 (Baker, 1951)," states the FWS.[38] Yet the FWS fails to include Baker's ground dove population estimates for the other islands he visited: 10 doves on Garakayo, and 5-10 on Ngabad.[39] In addition, and as with the fantail, the FWS conveniently omits Marshall's population estimate. "[T]he tiny solitary Palau Ground Dove (*Gallicolumba canifrons*) inhabits only woodland growing on rocky ridges. It was commonly found in this situation on Peliliu [*sic*] and Koror in the Palau group," according to Marshall.[40] If the dove was rare, then Marshall likely would not have used the world

[35] Baker 1951, p.269.

[36] Marshall 1949.

[37] Marshall 1949, p.214.

[38] U.S. Fish and Wildlife Service 1984f, p.36666; U.S. Fish and Wildlife Service 1985b, p.37193.

[39] Baker 1951, p.202.

[40] Marshall 1949, p.207.

"commonly" to describe the frequency with which he found the dove in its preferred habitat.

OWL

The FWS states; "The owl has always been reported as common, though immediately after World War II it was rare on islands of southern Palau affected by the war (Marshall, 1949; Baker, 1951)."[41] As in the cases of the fantail and ground dove, the FWS omits key information about the owl in Marshall's publication. While Marshall only found four pairs of owls on Peleliu, according to him, he "observed 33 pairs on Koror, representing about half the total population there."[42] While Peleliu is in southern Palau, Koror is in the central part of the archipelago. The presence of an estimated sixty-six pairs on this island alone constitutes a fairly substantial population, and strongly suggests that substantial owl populations existed on other islands.

CONCLUSIONS ON LISTING DATA

A common thread that runs through the FWS's portrayal of the pre-ESA population data on the fantail, ground dove and owl is the agency omitted key data that showed these three species to be more abundant than portrayed. Most significantly, the FWS omitted data contained in Marshall's 1949 article that indicated these three species were more abundant than the agency claimed when delisting occurred in the mid-1980s. While the post-WW II publications did not focus much on the distribution and abundance of these birds, as Engbring and Pratt observed, Marshall's article had by far the most information on distribution and abundance. Furthermore, Marshall's 1949 article would have been available to the FWS in 1973 when Congress passed the ESA and the agency subsequently compiled a list of species to receive protection under the Act.

Another indication that Marshall conducted the most thorough survey of Palau is that he mentions visiting not only southern islands, such as Peleliu, but also the central island of Koror and the largest island, Babelthuap.[43] By contrast, Baker, the FWS's preferred source on the status of these three birds, only mentions visiting southern islands. While Baker cites Coultas as

[41] U.S. Fish and Wildlife Service 1984f, p.36666; U.S. Fish and Wildlife Service 1985b, p.37193.

[42] Marshall 1949, p.207.

[43] Marshall 1949, p.200-221.

having found the owl on Koror, Baker makes no mention of visiting this island or any of the other central islands, and he makes no mentions of any visit to Babelthuap. It is also important to keep in mind that Marshall's observations and data were not in some obscure publication but in a prominent journal that those at the FWS responsible for listing these birds certainly had the ability to access. The upshot is that the FWS seems to have favored Baker's publication over Marshall's because it comported with the agency's desire to portray these birds as imperiled and therefore in need of being listed under the ESA.

Another important aspect of the publications by Baker and Marshall is that both researchers conducted little, if any, survey work on Babelthuap, which contained enormous amounts of potential habitat for the owl and fantail.

POLITICS OF LISTING

Given that the FWS omitted population data for the fantail, ground dove and owl that indicated these birds were more abundant than the agency portrayed them, the question turns to why this occurred. Perhaps the FWS was unaware of these data. But this is highly implausible because, as mentioned, the FWS had access to Marshall's journal article.

All of the publications cited above were available to those at the FWS who decided to list the owl, ground dove and flycatcher; initially in 1970 and then to re-list the species under the ESA of 1973. As with the Tinian monarch, the reasons behind the listings most likely had to do with politics. The FWS first listed the three Palau birds in June 1970 occurred under the Endangered Species Conservation Act, a predecessor to the ESA passed in 1969. At the time, the FWS and environmental pressure groups were eager to make the newly passed ESCA appear necessary, and listing these three birds was very likely part of this effort.

When the FWS listed the owl, dove and fantail under the ESA of 1973, however, the political stakes were much higher. The ESA was the crowning glory for those in the Interior Department, environmental pressure groups and Congress who had long sought to pass powerful legislation that would conserve imperiled species and be a potent tool for controlling land and resource use. In the eyes of its proponents, the ESA had to be protected from any criticism that could taint the new law, or the more general cause of imperiled species conservation. If these three birds from Palau did not merit protection under the ESA, this might call into question the

validity of the data upon which the FWS initially listed them in 1970. Not only would this potentially shed an unflattering light on the ESA and its immediate predecessor, but it also might raise uncomfortable questions about the validity of the listing of other species under the 1969 Act that were also carried over to the ESA.

Proponents of the ESA were not about to let their newly passed and cherished law be tarnished and so they likely did one or both of two things: failed to scrutinize the validity of the information on which the FWS listed these birds, as well as other species, for fear of discovering evidence that they did not merit the ESA's protection; or deliberately concealed evidence—either by ignoring data, distorting it, or both—that these species did not merit listing. The first explanation would be the result of incompetence, the second mendacity.

The explanation was likely a combination of both, but with mendacity being a more significant factor for two reasons. First, in the time period from the late 1960s to the early 1970s the FWS had many competent biologists working for it; biologists who would be able to read the historical literature and easily reach the conclusion that the three Palau birds likely did not merit listing. During this time period, FWS biologists could have consulted experts, most notably Robert Owen, an Interior Department employee who at the time was the Chief Conservationist for the Trust Territory of the Pacific Islands. Owen had a great deal of expertise on Palau's fauna, having first come to islands in the 1950s to control the invasive coconut rhinoceros beetle. He liked the islands so much he stayed and gained expertise on the islands' flora and fauna. Second, there was very little literature, and very few people with expertise, about these birds. In short, it would have been easy for those at the FWS responsible for listing the Palau birds to gather information on their status.

The combination of these two factors makes it virtually inconceivable that those at the FWS who made the decision to list the owl, ground dove and flycatcher under the ESA or its predecessor law were unaware that these species were not imperiled or, at the very least, that the data used to support listing these birds was totally invalid for making any type of determination of these species' population status. If this is not the case, and the FWS listed these birds under the ESA simply based on the fact that the agency had listed them in 1970, then this calls into question the validity of the other species listed under the 1969 act and carried over to the ESA.

DELAYED DELISTING

The FWS delayed delisting the owl, ground dove and fantail, and then claimed them as recovered, because in all likelihood the agency wanted to put the ESA in the most favorable light possible. Had delisting occurred soon after the FWS listed these birds under the ESA, this obviously would have made the Act look bad. But if, as occurred, delisting happened after more than ten years under the ESA's "protection" then the FWS's case for recovery, as opposed to data error, would appear more plausible.

As with so many of the other "recovered" or proposed-to-be-recovered species—such as the American alligator, Rydberg milk-vetch, both subspecies of peregrine falcon, gray whale, Tinian monarch, bald eagle, and Hawaiian hawk—the FWS was exceedingly slow to act upon data that concluded the Palau birds no longer warranted listing under the ESA. According to Pratt *et al*., Owen concluded in 1977 the fantail did not merit being listed under the ESA. Owen's conclusions were contained in a report titled, *Terrestrial vertebrate fauna of the Palau Islands*, published by Office of the Chief Conservationist of the Trust Territory of the Pacific Islands, which was, after all, part of the very same Interior Department that had jurisdiction over the ESA.[44] Then, three years later, Pratt *et al*. stated, "[t]he recommendation is made that *Pyrrhoglaux podargina*, [and] *Rhipidura lepida*…be declassified as Endangered Species."[45] Even though the world's leading experts on the owl and fantail concluded these species longer merited the ESA's protection, it took the FWS four years to act on this when the agency proposed in 1984 to delist the flycatcher, owl and dove.[46]

In 1985 when the FWS finally delisted these birds, the author of the final Federal Register rule was none other than John Engbring, the FWS biologist who co-authored the two peer reviewed articles that called into question the validity of the birds' original listing. It is striking that the FWS's most candid statements about these birds, especially the statements that the birds were essentially cases of data error, were made by Engbring in the final rule. Even so, Engbring, or as is more likely his FWS superiors running the endangered species program,

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[44] Pratt et al., 1980, p.126.

[45] Pratt et al., 1980, p.117.

[46] U.S. Fish and Wildlife 1984f, p.36665.

realized that three more examples of data error would put the ESA in an unflattering light. It seems the FWS was especially keen in the mid-1980s to make the Act look good because, of the ten species delisted prior to the Palau birds, five were cases of extinction, four data error. The one so-called recovery—portions of the Atlantic brown pelican's population—was largely due the ban of the pesticide DDT in 1972, not passage of the ESA in 1973. As the profile of the pelican makes clear, factors other than the ESA account for almost all of the bird's resurgence.

The final Federal Register rule on delisting is also revealing in that the only two comments were submitted on the proposed delisting, both of which supported delisting. In one of those comments, Robert Owen, at this point the former chief conservationist for the Trust Territory Conservation Office, "stated that the original listing was based on surveys of southern Palau completed by military ornithologists a short time after U.S. forces had invaded Angaur and Peleliu. These invasions caused serious destruction of the vegetation and wildlife."[47] The delisting was also supported by Douglas Pratt. "He has made intensive studies of the birds of these and other western Pacific islands," according to the Federal Register.[48] "He believes that these birds are very likely at the carrying capacity of their habitats and that these habitats are under no presently foreseeable threat. He knows of no management measures that could conceivably increase the populations of these three species over present levels."[49]

"CONSERVATION" UNDER THE ESA

There is no evidence that the FWS, or any other federal agency for that matter, undertook any conservation measures under the auspices of the ESA for the Palau owl, Palau ground dove, and Palau fantail flycatcher. The FWS admits as much in the final delisting rule; "As there were no specific preservation or conservation measures for these species in effect, there will be no impact on any agency or individuals."[50] The simple reason for this is that the ESA could do nothing for birds that did not merit the Act's protection in the first place.

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[47] U.S. Fish and Wildlife Service 1985b, p.37192.

[48] U.S. Fish and Wildlife Service 1985b, p.37192.

[49] U.S. Fish and Wildlife Service 1985b, p.37192.

[50] U.S. Fish and Wildlife Service 1985b, p.37194.

Even though the ESA did nothing to conserve these birds, the FWS tried to claim that in the case of the owl the agency engaged in actual on-the-ground conservation, as opposed to the agency's usual non-specific claims of ESA success for the three Palau birds. According to the FWS:

"The Palau owl was always reported as common, though a decline reported in 1945 continued after the end of World War II. An effective program reduced the rhinoceros beetle population, an introduced species, which killed owls when ingested. Only four pairs of this bird were reported in 1945. By the 1960s, the owl had begun to increase in significant numbers. Today, more than 10,000 are thought to inhabit the archipelago. The owl was removed from the list in 1985, and populations appear to be stable."[51]

This statement about the threat posed to the owl by the rhinoceros beetle is highly deceptive, to say nothing of irrelevant, as beetle control efforts were undertaken prior to the ESA's passage. Also, the FWS fails to mention that by the time of the ESA's passage the owl's population was so healthy it did not merit the Act's "protection." The result of these omissions is that the FWS gives the false impression that the ESA may have had something to do with beetle control and the owl's subsequent population increase.

The truth, however, is the ESA had nothing to do with control of the coconut rhinoceros beetle. The beetle was accidentally introduced to Palau in 1942 as a result of Japanese military activity during World War II. In the 1950s the U.S., as the administrator of the Trust Territory of the Pacific Islands, initiated a program to control the beetle. The program involved a combination of field sanitation (clearing away dead and rotting plant matter), as well as biological control (the introduction of a fungus that kills the grubs that turn into beetles). Even so, during this time period the owl population appears to have continued its post-WW II decline.

Robert Owen speculated that there was a link between the owl decline and the beetle because beginning in the 1960s he heard anecdotal reports of owls eviscerated by beetles they ingested. Owen was skeptical of these reports until he received an owl that had indeed been eviscerated, although it was not possible to determine by what. The beetle was the most likely

[51] U.S. Fish and Wildlife Service 1995a, p.2.

culprit, especially because owls had been observed ingesting coconut beetles. However, "[n]o direct study of the owl-beetle interaction was ever made, and we offer this somewhat apocryphal account in the hope of stimulating such investigation," stated Pratt, Engbring, Bruner, and Berrett.[52] By the late 1960s control efforts proved fairly successful, and the owl population seems to have begun to increase.[53]

The salient point is that control of the coconut rhinoceros beetle occurred years before the ESA's passage. The Palau owl seems to have benefited from these control efforts and been on the increase long before the Act's passage. In this respect the rhinoceros beetle is much like the threat of DDT posed to birds like the brown pelican, peregrine falcon, and bald eagle because the threat was removed prior to the ESA's passage, and therefore the Act can claim absolutely no credit for removing both of these threats.

CONCLUSIONS

The Palau owl, Palau ground dove, and Palau fantail flycatcher are clearly cases of data error. With the possible exception of the owl, these birds were likely never imperiled throughout their range, although by the time of the ESA's passage the owl was doing fine. While the populations of these birds likely declined, the decline was limited, both geographically and temporally. Habitat destruction occurred primarily on the two islands that experienced heavy fighting associated with World War II, Angaur and Peleliu, as well as portions of other islands subjected to agriculture and human settlement. However, Angaur and Peleliu and portions of islands on which anthropogenic habitat destruction and degradation occurred constituted a minority of the habitat for these birds.

Similarly, the temporal dimension of habitat destruction was limited. As vegetation recovered in the decades following World War II, so, too, did the populations of these birds on those islands where fighting occurred. Revegetation was so extensive that even on Angaur and Peleliu these birds were essentially fully recovered by the time the FWS listed them under the ESA. On the other islands of the Palau archipelago the populations of these three birds were likely always healthy, even during World War II. The possible threat to the owl posed by the

[52] Pratt et al., 1980, p.124.

[53] Pratt et al., 1980, p.124.

introduced coconut rhinoceros beetle had diminished prior the ESA's passage so that the owl's population was in all likelihood healthy and increasing by 1973. Despite strong evidence that these birds never merited being listed under the ESA, the FWS and some environmental pressure groups insist otherwise.

The fact that the Palau owl, Palau ground dove, and Palau fantail flycatcher survived some human induced habitat destruction and degradation is, indeed, something to celebrate, especially when so many species of birds endemic to the Pacific Islands have gone extinct or are seriously imperiled for this very reason. This celebration should, however, be grounded in the truth about these birds, two aspects of which are that these species never should have been listed under the Endangered Species Act because they were too abundant to merit the Act's protection, and the ESA had nothing to do with their conservation.