

Brian Seasholes

*The Endangered Species Act at 40: Species Profiles*

# TINIAN MONARCH



Photograph by Devonpike at English Wikimedia

# **TINIAN MONARCH** *(MONARCHA TAKATSUKASAE)*

## **Range**

Historic: The island of Tinian in the Mariana Archipelago in the western tropical Pacific

When listed: same as historic

When downlisted: same as historic

When delisted: same as historic

**Listed status**: Endangered [35 FR 8491-8498], 6/2/70, and then carried over to the ESA of 1973.

**Current status**: Recovered [69 FR 56367-56373], 9/21/04.

**Status prior to delisting**: Threatened [52 FR 10890-10892], 4/6/87.

**Official reason for listing**: Presumed population decline due to habitat destruction from cattle grazing, sugar cane production and heavy fighting during WW II.

**Recovery criteria**: None, no recovery plan.

## **Population**

Historic: Unknown, but likely higher than when delisted

When listed: Unknown, but close to population when delisted

When downlisted: approximately 40,000.

When delisted: approximately 56,000.

## CLAIMS THAT THE TINIAN MONARCH IS AN ESA SUCCESS STORY

- 1) The monarch is one of “100 Success Stories for Endangered Species Day 2007”—Center for Biological Diversity.<sup>1</sup>
- 2) “A small flycatcher found only on the island of Tinian in the Northern Mariana Islands, this bird has expanded its population from 50 or fewer after World War II to approximately 57,000 today. Its ‘delisting’ is pending.”—White House Council on Environmental Quality<sup>2</sup>
- 3) “Available evidence clearly demonstrates that when the ESA has been properly implemented, it has been very successful at halting declines of listed species and bringing highly endangered species back from the jaws of extinction...[such as] the Marianas Island’s Tinian monarch flycatcher, the Act has worked.”—John Fitzgerald, then counsel, Defenders of Wildlife.<sup>3</sup>
- 4) “If the [delisting] proposal is finalized, this will be the fourth Pacific bird species removed from the protection of the Endangered Species Act due to its recovery.”—FWS<sup>4</sup>
- 5) “While recovery takes time, we are seeing tangible results. A steady number of listed species are moving from the status of declining to stable or improving. We anticipate preparing several additional delisting or downlisting actions due to recovery in the coming year. These include species like the...Tinian monarch (*Monarcha takatsukasae*).”—Charlie Scott, then Chief of the Branch of Recovery and Delisting, in the FWS Office of Endangered Species.<sup>5</sup>
- 6) “[L]esser-known species like Tinian monarch have seen their populations recover with the current protection afforded under the Endangered Species Act.”—Noah Greenwald, Center

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<sup>1</sup> Center for Biological Diversity 2007d.

<sup>2</sup> Council on Environmental Quality 2000.

<sup>3</sup> Fitzgerald 1992, p.129

<sup>4</sup> U.S. Fish and Wildlife Service 1999b.

<sup>5</sup> Scott 2000, p.7.

for Biological Diversity.<sup>6</sup>

- 7) “Many more species will be following the peregrine [falcon] on its road to recovery in the near future, including...the Tinian monarch—a fitting tribute to the 25th anniversary of the Endangered Species Act.”—U.S. Fish and Wildlife Service<sup>7</sup>

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<sup>6</sup> Greenwald 2009.

<sup>7</sup> U.S. Fish and Wildlife Service 1998e.



the monarch and the three Palau birds because all these birds suffered habitat destruction, and hence population decline, from fighting and bombardment associated with World War II (WW II). In the case of the monarch, the clearing of forest habitat for cattle grazing and sugarcane production prior to WW II also contributed to the species' decline. Some of the surveys of Tinian conducted soon after WW II naturally found very few of these birds because their habitat was devastated. In the ensuing years and decades, as the monarch's forest and shrub habitat slowly returned, the bird gradually increased. Just as the three Palau birds had probably recovered by the time they were listed in 1970 under the law preceding the ESA, so, too, had the Tinian monarch.

Currently, the island of Tinian is part of the Commonwealth of the Northern Mariana Islands so at first glance it is not clear how the ESA applied to this island. The Endangered Species Act's jurisdiction in the Northern Marianas stems from the islands' status vis-à-vis the U.S., the history of which is rather convoluted. Following World War II, in 1947 the U.S., under the auspices of the United Nations, was granted trusteeship of the Marianas as part of the Trust Territory of the Pacific Islands (TTPI). In 1951, President Truman gave the U.S. Department of Interior responsibility for administering the Trust Territory.<sup>8</sup>

Then in 1975 the U.S. government and peoples of the Marianas established a covenant that delineated their political and legal relationship.<sup>9</sup> The covenant basically established the framework by which the Trust Territory could become self-governing but still be subject to U.S. sovereignty. In 1976, the U.S. Congress approved the covenant, President Ford signed the legislation approving the covenant, and the following year the Commonwealth of the Northern Mariana Islands (CNMI) adopted its own constitution.

In 1978, the first government of the CNMI was formed and took office. The next step occurred in 1986 when residents of the islands were granted U.S. citizenship. The final step came in 1990 when the United Nations voted to end the trusteeship it granted in 1947.<sup>10</sup> Under the terms of the agreement to end trusteeship, most U.S. federal law would continue to apply to the CNMI, including the Internal Revenue Service code, although the Commonwealth essentially

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<sup>8</sup> Commonwealth of the Northern Marianas Islands. ND. Northern Marianas.

<sup>9</sup> Commonwealth of the Northern Marianas Islands. ND. Northern Marianas.

<sup>10</sup> U.S. Department of Interior, Office of Insular Affairs. ND. Commonwealth of the Northern Mariana Islands.

decides on the tax system. The CNMI, however, is not subject to U.S. custom duties.<sup>11</sup> Residents of the CNMI enjoy all the benefits of U.S. citizenship except for the right to vote in presidential elections.<sup>12</sup> The upshot of all of this in terms of the Tinian monarch is that the ESA applied, and continues to apply, to the CNMI.

There are five main issues pertaining to the Tinian monarch and the ESA that will be discussed. First, the bird is clearly a case of data error. Second, are the circumstances surrounding the monarch's listing. Third, the FWS appears to have distorted historic literature so as to make the monarch's listing appear justified. Fourth, delisting was delayed unnecessarily due to political reasons. Fifth, the ESA played an essentially insignificant role in the monarch's conservation.

## **DATA ERROR**

The Tinian monarch is clearly a case of data error. To understand why this is so, it is necessary to understand some of the historical and ecological issues that affected the monarch.

## **BACKGROUND**

The decline of the Tinian Monarch likely dated to the 18<sup>th</sup> century when cattle grazing by the Spanish, the island's first colonial ruler, degraded the forests in which the bird lived. This type of degradation continued for the next two centuries and accelerated in the early 1900s with the arrival of the Japanese. In 1926 a Japanese corporation leased the whole island and cleared large amounts of land for sugarcane. With the onset of World War II massive habitat destruction occurred. Tinian was the site of a Japanese base, and very heavy fighting occurred when the U.S. invaded in 1944.<sup>13</sup> Upon capturing Tinian, the U.S. constructed the largest airfield in the

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<sup>11</sup> U.S. Department of Interior, Office of Insular Affairs. ND. Commonwealth of the Northern Mariana Islands.

<sup>12</sup> Commonwealth of the Northern Marianas Islands. ND. Northern Marianas.

<sup>13</sup> U.S. Fish and Wildlife Service 199a, p. 8534.

Pacific from which bombing raids on Japan were launched, including those that dropped the two atomic bombs.<sup>14</sup>

After WW II, the cumulative effects of two centuries of habitat destruction and degradation had resulted in the clearing of around 95% of Tinian’s native forests.<sup>15</sup> This would seem to have had a devastating impact on the monarch, which is a forest dwelling bird, but it is not clear if it did. Following WW II, the island was revegetated with a number of non-native plant and tree species, the most widespread of which was a species of shrubby legume known as tangantangan and likely introduced by the U.S. military. Tangantangan flourished and provided suitable habitat for the monarch. So as the vegetation on Tinian grew, so, too, did the monarch population.<sup>16</sup>

### **FWS ADMITS DATA ERROR**

In 1985, when the FWS issued its first proposal to delist the monarch, the agency admitted the monarch was a case of data error. “It seems very likely that the species had recovered to near its pre-1945 abundance,” by the time the monarch was listed in 1970 under a predecessor law to the ESA, the Endangered Species Conservation Act of 1969, stated the FWS.<sup>17</sup> “[A] reassessment of the original classification data indicate that the monarch was probably not endangered when actually listed in 1970,” stated the FWS.<sup>18</sup> This, however, was the first and last time the FWS would be so candid about acknowledging the monarch was a case of data error.

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<sup>14</sup> U.S. National Park Service 2001.

<sup>15</sup> U.S. Fish and Wildlife Service 1999a, p.8535.

<sup>16</sup> U.S. Fish and Wildlife Service 1985d, p.45632.

<sup>17</sup> U.S. Fish and Wildlife Service 1985d, p.45632.

<sup>18</sup> U.S. Fish and Wildlife Service 1985d, p.45633.

**BELATED ADMISSION OF DATA ERROR**

Even though the FWS made this admission in 1985, the agency had to have known since at least 1979 that the monarch was a case of data error, or, at the very least was not imperiled and in need of the ESA. As early as 1979 published information was available indication the monarch was not imperiled. Those at the FWS responsible for keeping track of the Tinian monarch almost certainly would have been aware of and read this information because it was published in a well-known peer reviewed journal by highly respected scientists, and there was so little information published on the monarch that it is inconceivable those at the FWS were unaware of the article. “As our observations and those of others show, the Tinian Monarch probably never deserved a place on the list of Endangered Species,” according to a 1979 article by Douglas Pratt, a staff research associate at Louisiana State University’s Museum of Natural Science, one of the world’s foremost painters of birds, as well as one of the world’s leading experts on birds of the tropical Pacific, and Phillip Bruner and Delwyn Berrett, both of Brigham Young University’s Hawaii campus.<sup>19</sup> “Owens [*sic*] (*pers. comm.*) found the Tinian Monarch to be abundant in 1974. Bruce confirmed his observations in 1975 and Bruner and Pratt found a similar situation in 1976,” they added.<sup>20</sup> Another reason the FWS must have been aware of this article is that the “Owens” to whom the article referred was actually Robert Owen, an Interior Department employee who at the time was the head of the Trust Territory Conservation Office. Under the trusteeship agreement, the Interior Department was granted administrative responsibility for Tinian.

In 1981 there was yet another indication the monarch was not imperiled. The monarch was no longer considered endangered by the International Council for Bird Preservation (ICBP). The ICBP, now known as Birdlife International, was and is the world’s foremost authority on bird conservation, especially of imperiled species. The ICBP consists of an international network, primarily of non-governmental bird conservation organizations but also individuals, foundations and government institutions. Due to its expertise, the ICBP/Birdlife International has been designated by the World Conservation Union, otherwise known by the acronym IUCN,

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<sup>19</sup> Pratt et al., 1979, p.231.

<sup>20</sup> Pratt et al., 1979, p.231.

as the compiler and author of the IUCN's *Red Data Book* for birds, which is published every few years and serves as the definitive worldwide list of imperiled birds. With the publication of the 1981 *Red Data Book* for birds, the monarch was no longer listed, which meant that the ICBP no longer considered it imperiled.<sup>21</sup>

In the late 1970s, the population of monarchs was estimated to be in the tens of thousands, and a 1982 FWS survey “found the monarch to be the second most abundant species on Tinian with a population estimate of 40,000.”<sup>22</sup> The monarch was so common that by at least 1986, it inhabited some 62% of the island's total surface area of 25,135 acres.<sup>23</sup> A 1996 survey resulted in an estimated population of 55,721.<sup>24</sup> The increase in monarchs between 1982 and 1996 was likely due to a decrease in cattle grazing following several droughts and the resulting increase in available habitat.<sup>25</sup>

In 1985, there was yet more evidence the monarch was a case of data error. That year saw the publication of a peer reviewed book chapter authored by two of the leading authorities on the birds of the Marianas; John Engbring, the FWS biologist who wrote the 1985 delisting proposal, and Douglas Pratt.<sup>26</sup> “Certain of these forms [of bird species native to the Marianas] were the subject of conflicting status reports after World War II, and as a result, official designations of endangered species on these islands are in several cases unjustified,” state Engbring and Pratt. “For example, the Tinian Monarch, officially and Endangered Species, is abundant on Tinian. The 1983 USFWS surveys have provided solid data on which to revise designations.”<sup>27</sup> The FWS published the results of these surveys in 1986 and Engbring was the lead author.<sup>28</sup> Due to the fact that the monarch should not have been listed, Engbring and Pratt asserted that the bird was “nominally an Endangered Species.”<sup>29</sup> The book in which Engbring

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<sup>21</sup> King 1981.

<sup>22</sup> U.S. Fish and Wildlife Service 1999a, p.8534.

<sup>23</sup> U.S. Fish and Wildlife Service 1999a, p.8535.

<sup>24</sup> U.S. Fish and Wildlife Service 1999a, p.8534.

<sup>25</sup> U.S. Fish and Wildlife Service. 1996d, p.187.

<sup>26</sup> Engbring and Pratt 1985.

<sup>27</sup> Engbring and Pratt 1985, p.83.

<sup>28</sup> Engbring et al., 1986.

<sup>29</sup> Engbring and Pratt 1985, p.83.

and Pratt's assessment of the monarch's status appeared was well known in the ornithological world, especially by those concerned the conservation of imperiled birds, so it is highly likely the FWS would have been aware of it.

The upshot of these publications is that by 1979, at the latest, the FWS must have known the monarch did not merit listing under the ESA. As the evidence began accumulating over the next six years, it became all but impossible for the FWS to ignore the fact that the monarch should not be protected by the ESA. Yet the FWS apparently chose to ignore this reality and decided not to delist the monarch, but to downlist it in 1987 from endangered to less imperiled status of threatened. One likely reason for this is that delisting would have called attention to the embarrassing reality of data error. After all, the public, Congress, and the media tend to pay more attention if a species is delisted than downlisted. Even so, when the FWS downlisted the monarch the agency admitted the bird was listed “[b]ecause its numbers in 1945 were thought to be critically low due to the removal of native forests for sugarcane production and to the destruction of forest by the activities of World War II, the monarch was listed as endangered in 1970, though there had been no surveys of the bird's status in the preceding two decades.”<sup>30</sup>

### **IMPLY, BUT NOT ADMIT, DATA ERROR**

It was not until 1999 that the FWS again proposed the monarch to be delisted, at which time the FWS implied, but would not admit, the monarch was a case of data error. “The primary reasons for listing the monarch were presumed low numbers... and the removal of destruction of forest by agricultural practices and/or military activities during WW II,” according to the FWS.<sup>31</sup> As the FWS admits, when the agency listed the monarch in 1970 it had no current data on which to base its decision to list; “no surveys for this species were conducted in the 20-plus years before the 1970 listing.”<sup>32</sup> In the 1999 delisting proposal the FWS also stated, “this listing was not based on actual surveys of the bird's status. Subsequently, in 1982, we conducted a survey

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<sup>30</sup> U.S. Fish and Wildlife Service 1987a, p.10890.

<sup>31</sup> U.S. Fish and Wildlife Service 1999a, p.8534.

<sup>32</sup> U.S. Fish and Wildlife Service 1999a, p.8535.

and found an increase both in Tinian monarch numbers and suitable forest habitat.”<sup>33</sup> While the first part of this statement is accurate, the second part is misleading. If no surveys had been conducted prior to 1982, then it would not be possible to claim, as the FWS did, that the monarch population had increased by 1999. Even though the FWS made these statements in 1999 that implied data error, the agency did not make a more explicit admission as it did in the 1985 delisting proposal.

The monarch’s status as a data error species is due in large part to the revegetation of Tinian by tangantangan, a non-native shrub. “Since 1945, most of Tinian has been revegetated by a shrubby legume [tangantangan]...seeded by the U.S. military,” said the FWS. “The monarch has adapted well to this introduced, woody shrub, and is now found abundantly throughout Tinian. Biologists who have visited Tinian over the last 10 years have commented on the general abundance of the monarch...and forest bird surveys conducted by the Service in 1982 found the monarch to be the second most abundant bird on the island with a population estimate of 10,000.”<sup>34</sup> The estimate of 10,000 was a misstatement; the correct number was 40,000 as cited in the 1987 final rule on downlisting.<sup>35</sup>

At the time of delisting in 2004, tangantangan provided an estimated 93% of the monarch’s habitat, with the remaining 7% consisting of the remnant native forests that, due to their inaccessibility, survived past centuries of habitat destruction. While the monarch and a number of other endemic bird species have adapted to tangantangan, they have significantly higher population densities and reproductive success in the remaining native forest.<sup>36</sup> But, as Annie Marshall of the FWS has pointed out, tangantangan is a net benefit to these species because had the U.S. military not started the revegetation process the monarch might have gone extinct for lack of habitat, and it is better to have more than less suitable habitat even if the habitat is non-native.<sup>37</sup> Even so, it is important to note that the monarch is relatively anomalous, one the few endangered or threatened species that has been able to adapt successfully to non-

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<sup>33</sup> U.S. Fish and Wildlife Service 1999a, p.8534.

<sup>34</sup> U.S. Fish and Wildlife Service 1985d, p.45632.

<sup>35</sup> U.S. Fish and Wildlife Service 1987a, p.10890.

<sup>36</sup> U.S. Fish and Wildlife Service 1996d, p.41.

<sup>37</sup> Marshall 1997

native habitat. Most imperiled species are not so lucky and introduced species have caused the imperilment of 49% of animals, vertebrates and invertebrates, listed under the ESA, while habitat destruction and degradation the leading cause at 85% (these figures sum to more than 100% because some species are threatened by each).<sup>38</sup>

Even supporters of the ESA admit the monarch is a case of data error. “The USFWS also contends that the Tinian Monarch, a Pacific island bird, has recovered, but we believe its proposed delisting is more accurately attributed to new data than to improved status,” note 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.<sup>39</sup>

Despite all of this evidence that the monarch was too abundant to merit listing under the ESA and that what was thought to be the primary threat—loss of native habitat—turned out not to be a threat, the FWS steadfastly refuses to admit this. The closest the FWS came to admitting data error was in the 1985 delisting proposal when the agency stated that the monarch was “very likely” listed erroneously.<sup>40</sup> But in 1987, when the FWS decided to downlist instead of delist the monarch, the agency backpedaled by stating that the monarch “likely” was listed in error.<sup>41</sup> With the publication of the 1999 delisting proposal, the FWS no longer made any such admissions that the monarch was likely, or even very likely, listed in error. The FWS would only go so far as to state that the monarch’s listing, “was not based on actual surveys of the bird’s status.”<sup>42</sup> And when delisting occurred in 2004, the agency made essentially the same statement; “no actual surveys of the monarch’s status had been conducted at the time of listing.”<sup>43</sup>

The Tinian monarch is clearly a case of data error, despite efforts by the FWS and some in environmental pressure groups to claim otherwise.

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<sup>38</sup> Wilcove et al., 1998.

<sup>39</sup> Doremus and Pagel 2001, p.1264.

<sup>40</sup> U.S. Fish and Wildlife Service 1985d, p.45632.

<sup>41</sup> U.S. Fish and Wildlife Service 1987a, p.10890.

<sup>42</sup> U.S. Fish and Wildlife Service 1999a, p.8534.

<sup>43</sup> U.S. Fish and Wildlife Service 2004a, p.56368.

## POLITICS OF LISTING

The reasons behind the insistence by the FWS and some environmental pressure groups that the monarch recovered due to the ESA, as opposed to data error, stem in large part from political considerations. The FWS and pressure groups are trying to make the monarch's listing appear justified so as to conceal the fact that the bird was listed in error and thereby spare the Act from criticism. These considerations have their origin in the monarch's listing. "The listing was based upon the report of Gleize (1945)," according to the FWS in 1987 when the agency downlisted the monarch.<sup>44</sup> In the 1985 delisting proposal, however, the FWS claimed, "[t]he listing was based upon the report of Baker (1951), which was for field work done in the late 1940's."<sup>45</sup> There is no explanation as to why the source for the monarch's listing changed between 1985 and 1987, but a comparison of the two publications is insightful.

As it turns out, Gleize's report consisted of a single page published in the *Bulletin of the Massachusetts Audubon Society*, which was not a peer reviewed journal.<sup>46</sup> More significantly, is that the FWS has badly distorted Gleize's 1945 report, an explanation of which can be found in the 1979 peer reviewed article by Pratt *et al.*<sup>47</sup>

"The apparent reason for the designation of this Tinian endemic as an Endangered Species is a misreading of the report of Gleize (1945) that gave an estimate of 40-50 birds. A careful reading of that paper reveals that the figure represents the actual number of birds the author saw in a small part of the island and was not an estimate of the overall population. Marshall (1949) spoke of 'the peak its abundance,' a phrase that could hardly have applied to a population of 40-50 birds."<sup>48</sup>

It is somewhat ironic that this analysis by Pratt *et al.* appeared in the journal *American Birds*,

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<sup>44</sup> U.S. Fish and Wildlife Service 1987a, p.10890.

<sup>45</sup> U.S. Fish and Wildlife Service 1985d, p.45832.

<sup>46</sup> Gleize 1945.

<sup>47</sup> Pratt *et al.*, 1979.

<sup>48</sup> Pratt *et al.*, 1979, p.231.

which is published by the National Audubon Society, one of the ESA's foremost proponents and an organization that has made numerous false and misleading statements about the Act's role conserving species such as the bald eagle, American peregrine falcon and Eastern brown pelican. The analysis of Gleize's article by Pratt *et al.* cropped up again 1985 when Pratt co-authored a book chapter with the FWS's John Engbring. "Its classification as Endangered was possibly based on an erroneous reading of a report by Gleize (1945). He reported 40-50 monarchs, but a close look at his paper reveals this to be the number he actually saw, not a population estimate."<sup>49</sup>

### **FLIMSY LITERATURE**

These assessments by Pratt *et al.* and Engbring and Pratt of Gleize's article are overly generous. One does not have to engage in a "careful reading" or a "close look" of the article to determine that in no way could it be interpreted as an island-wide survey. Gleize's article consists of a single page, half of it narrative text consisting of 250 words, half of it a list of the eighteen species he recorded, the estimated number of each of these species, and the habitats in which he observed the species. The article was, as the above authors ascertained, simply an account of the birds that Gleize came across while stationed on Tinian with the U.S. military during WW II. Gleize only made one mention of the geographic extent of his bird watching jaunts. "This is the first time I have been able to name every bird in my area, and the pursuit of the hobby has helped me pass the time and escape war-nerves."<sup>50</sup>

Not only did Gleize limit his observations to the "area" in which he was stationed, but it is also clear he was an amateur, as bird watching was his admitted "hobby." Furthermore, the only birds mentioned in the narrative portion of the article were the Pacific golden plover (4 sentences), gallinules (1 sentence), an unidentified "white heron" (3 sentences), reef heron (1 sentence), and two sentences on the cardinal honey-eater and the Marianas fruit dove, which were included because Gleize considered them the "most striking" birds he saw. The white heron was almost certainly the white color phase of the reef heron, something Gleize would have

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<sup>49</sup> Engbring and Pratt 1985, p.96.

<sup>50</sup> Gleize 1945.

known if he was familiar with the birds of Tinian or if he had checked other literature on the birds of the region.

In short, Gleize's article is in no way scientific, and it is in no way a survey of the entire island. It reads like a journal of somebody's travels because that is essentially what it is; the discursive observations of a bored, war-weary and seemingly intelligent soldier who by all appearances was an enthusiastic, albeit amateur, birdwatcher. It is astounding that the FWS based the listing of the Tinian monarch on this one publication—an extremely brief article that was impressionistic, limited in its geographic scope to only a portion of Tinian, to say nothing of obsolete by the time the bird was first listed in 1970.

The other publication in the post-WW II era that contained information on the monarch was published by Rollin Baker, a professor of zoology at the University of Kansas. At first glance Baker's publication would appear to be more authoritative than Gleize's. It consists of a three hundred and fifty-nine page book titled, *The Avifauna of Micronesia: its origin, evolution and distribution*, and the University of Kansas published it, which means it went through the peer review process.<sup>51</sup> However, as the title indicates, Baker was concerned primarily with the systematics, taxonomy and broad distributional patterns of the birds of Micronesia, not abundance data.

Baker conducted his research in 1945 as part of a U.S. Navy medical research unit that was studying ectoparasites, in particular how these parasites could infect people. However, Baker never once visited Tinian during his eleven months of field research.<sup>52</sup> As for the Tinian monarch, Baker's book contained about a page-and-a-half on the bird, but, in keeping with the book's purpose, almost all the data about the monarch had to do with its identifying characteristics and aspects of its life history, especially nesting.<sup>53</sup> The only data on the monarch's population is the following; "Gleise [*sic*] (1945:220) estimated the population of these birds to be 40 to 50 in 1945."<sup>54</sup> That's it. The upshot of both Gleize's and Baker's publications is that neither contain valid, island-wide population estimates.

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<sup>51</sup> Baker 1951.

<sup>52</sup> Baker 1951, pp.62-63.

<sup>53</sup> Baker 1951, pp.274-275.

<sup>54</sup> Baker 1951, p.275.

There is, however, a tantalizing clue about how the monarch could have been listed. In their 1979 journal article, Pratt *et al.* state, “population estimates made at that time [immediately after WW II] have been the basis for considerable concern (Vincent, 1967) and indeed appear to be the basis for the inclusion of several Mariana birds in the U.S. Fish & Wildlife Service (1976) list of Endangered Species.”<sup>55</sup>

It is the publication by Vincent that provides the clue because it is titled, “Birds in danger of extinction, threatened species of birds: general report,” and published in the *Bulletin of the International Council for Bird Preservation*, which, obviously, was the journal of the ICBP, currently known as Birdlife International.<sup>56</sup> Not surprisingly, given its title, Vincent’s article identified the Tinian monarch as an imperiled species. The monarch’s status in Vincent’s article was based on the publication by the IUCN in 1966 of the *Red Data Book* for birds. Jack Vincent was responsible for compiling the book, as the ICBP was given that responsibility by the IUCN. The information in the 1966 *Red Data Book* was fairly perfunctory. It consisted of a page or two in standardized format (e.g., a species’s common and scientific names, range, habitat, as well as a narrative portion on status), and one of these species was the Tinian monarch.

In the *Red Data Book* Vincent labeled the monarch’s status as “rare and local” because the “estimated numbers” were “between 40 and 50” in 1945.<sup>57</sup> And the source for this population estimate was none other than Gleize’s 1945 article. Vincent was obviously undeterred by the fact that Gleize’s article was not an island-wide survey. Under the heading, “reasons for decline,” he wrote, “...it is not known that there has been a marked decline in what has probably always been a small population. Nevertheless an excessive quantity of the birds seems to have been collected considering their small numbers.”<sup>58</sup> The only other source Vincent cited was Baker’s 1951 publication, which, of course, relied on Gleize’s article to arrive at a population estimate.

The 1966 *Red Data Book* contains five categories by which birds are classified, with Category 1 being the most imperiled and Category 5 the least. Vincent classified the monarch as a Category 4 species, which was defined as “Status inadequately known—survey required or

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<sup>55</sup> Pratt et al., 1979, p.227.

<sup>56</sup> Vincent 1967.

<sup>57</sup> Vincent 1966, p.2/238.

<sup>58</sup> Vincent 1966, p.2/238.

data sought.” In short, the monarch was listed in the *Red Data Book* even though its status was essentially not known and the data upon which its listing was based was essentially meaningless and two decades old.

It is very likely that those in the FWS responsible for the monarch’s initial listing in 1970 examined the 1966 *Red Data Book* because at the time it appears to have been the first publication since the post-WW II publications that raised the possibility that the monarch was an imperiled species. In fact, the *Red Data Book* upped the ante. The post-WW II publications were impressionistic and not island-wide surveys. But Vincent was apparently undeterred by this because in the *Red Data Book* he explicitly addressed the issue of the monarch’s status vis-à-vis its estimated population. The 1966 *Red Data Book* carried enormous weight because it was the definitive source on the world’s imperiled birds. So it seems likely that Vincent’s classification of the monarch was the basis for the FWS’s classification in 1970, which, in turn, was the basis listing under the ESA of 1973 because the FWS did not reassess the monarch’s status prior to listing it under the Act.

The listing of the Tinian monarch under the ESA and predecessor endangered species legislation was like the game of telephone: people sit in a circle and a story is repeated from one person to the next, but the further the story gets from its originator, the more distorted it becomes and it is often unrecognizable by the time it makes the full circle. While this may be a fun game to play, it is no way to list species under the ESA. The “telephoning” of the Tinian monarch does, however, provide telling insight into the FWS’s listing standards, or lack thereof, especially in the early days of the ESA.

### **LAZY, UNINQUISITIVE FWS**

Had the FWS wanted to obtain a population estimate prior to listing the Tinian monarch, either under the 1970 Endangered Species Conservation Act or the 1973 Endangered Species Act, doing so would have been relatively easy for four reasons. First, areas with small amounts of habitat, such as Tinian, tend to be easier to survey for wildlife than large areas. Second, wildlife species on islands, especially relatively isolated islands like Tinian, are usually confined by the surrounding water and so are limited in their ability to evade detection by moving. Third, relatively large species, like birds, tend to be easier to count, and hence estimate their population,

than smaller species such as insects. Fourth, all that those responsible for the endangered species program in Washington, D.C. in the early 1970s had to do was contact a fellow employee in the Interior Department, Robert Owen. At the time Owen was the head of the Trust Territory Conservation Office, stationed in Palau, and very knowledgeable about the fauna of Tinian. As Pratt et al. pointed out, “Owens [*sic*] (*pers. comm.*) found the Tinian Monarch to be abundant in 1974. Bruce confirmed his observations in 1975 and Bruner and Pratt found a similar situation in 1976.”<sup>59</sup> If Pratt et al. could have communicated with Owen in 1974 then the FWS Office of Endangered Species, which was created specifically to administer the ESA and which had significantly more resources and manpower than Pratt and his two fellow authors, easily could have done so. But the FWS was perhaps simply too lazy to bother.

The process by which one of the most abundant birds on a small island came to be listed under the ESA is due to three possible explanations; incompetence on the part of the FWS interpreting historical information, FWS laziness, or politics. The third explanation is most plausible because, as explained, the historical data was so weak the FWS in all likelihood misrepresented it in order to justify listing the monarch. The more likely explanation has to do with the FWS’s motivation for listing the monarch in 1970 to bolster the recently passed Endangered Species Conservation Act of 1969. More importantly, however, was that prior to placing the monarch under the ESA’s list of endangered and threatened species after the Act’s passage in 1973, the FWS did not reevaluate the bird’s status. Had this occurred then there was the very distinct likelihood that the monarch would not have merited protection under the Act. If the monarch had not been listed under the ESA, this would have tarnished, albeit in a relatively minor way because the monarch was an obscure species, the FWS and the ESA.

Some might claim that the FWS did not have adequate resources, in terms of funding or people, to evaluate the monarch’s status prior to listing it under the ESA. But this begs two questions. First, why didn’t someone at the FWS simply pick up the phone, or otherwise contact Robert Owen? Second, how many species other than the Tinian monarch were erroneously listed under the ESA because they were simply carried over to the Act without any sort of evaluation of their status?

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<sup>59</sup> Pratt et al., 1979, p.231.

## **DISTORTING HISTORICAL LITERATURE**

When the FWS delisted the Tinian monarch, the agency tried to substantiate its claim that the monarch recovered due to the ESA. One of the ways the FWS did this was to distort, mischaracterize and omit historical literature about the monarch's population size and status. An examination of the ways in which the FWS did so sheds more light on the monarch's listing and tenure under the ESA. Such an examination is possible because the FWS used just a few documents to justify the monarch's listing. That this examination is possible is very unusual and in marked contrast to other species, such as the bald eagle, for which there is no such clear-cut paper trail. As a result, the listing of the monarch sheds a great deal of light on how the FWS went about listing other species at the ESA's inception. There are a few of ways in which the FWS mischaracterized and omitted literature on the monarch.

First, and most significantly, is how the FWS has framed the historical literature so as to make the monarch's listing appear justified. In short, the FWS misportrays some historical literature and omits other literature.<sup>60</sup> Second, by examining the 1999 proposed delisting and the

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<sup>60</sup> The following passage appeared in both the 1999 proposal to delist and the 2004 final delisting:

“We based our decision to list the monarch as endangered on an estimate by Gleize (1945) of 40-50 monarchs on Tinian after WW II (April 6, 1987, 53 FR 10890), although it is not clear if his report was an estimate of the number of birds he saw, or an estimate of the entire population. Pratt *et al.*, (1979) suggested that this estimate represented only the number of birds that Gleize observed in a specific, small part of the island. About the same time as Gleize, Downs (1946) reported that monarchs were restricted in distribution to distinct locations on the island, while Marshall (1949) considered the monarch to be abundant” (U.S. Fish and Wildlife Service 1999a, p.8534).

There are several aspects of this statement that bear examining, the most important of which is the citation of Gleize. As mentioned above in the previous section, there is no possible way that Gleize's publication could be perceived as containing a population estimate for the entire island of Tinian. If the FWS was somehow not able to ascertain the shortcomings of Gleize's article in 1970 upon the ESA's passage, which is very hard to imagine, then the agency had to have known since at least 1979, when Pratt *et al.* published their article, that Gleize's sighting of 40-50 monarchs was only the birds he saw, not an island-wide survey. The FWS conveniently fails to cite this conclusion by Pratt *et al.*,—even though it was even made by Engbring in 1985, during which time he was one of the agency's own employees and a leading expert on the monarch—in the 1987 downlisting, the 1999 proposed delisting, and the 2004 delisting for the obvious reason that it totally discredits the source with which the FWS justified listing the monarch under the ESA. Yet in the proposed and final delisting, the FWS states, “it is not clear” whether Gleize's report consisted of the number of birds he saw or an island-wide survey, and that Pratt *et al.*, “suggested” it was the number of birds he saw. This characterization of Pratt *et al.*, is so inaccurate that the only possible explanation for it is blatant and purposeful dishonesty. As can be see above, Pratt *et al.*, were very clear and unequivocal in their assessment of Gleize's article, and even a cursory reading of their article reveals this.

So that leaves Downs's publication as the only possible basis for the monarch's listing according to the FWS. An examination of Downs's publication reveals that there is no conceivable way the FWS's characterization of it— as having, “reported that monarchs were restricted in distribution to distinct locations on the island”—is valid (U.S. Fish and Wildlife

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Service 1999a, p.8534). While Downs published in a peer reviewed journal, the *Transactions of the Kansas Academy of Science*, his article was, as he admitted, “by no means a complete treatise, but represents merely the observations that time, conditions and circumstances allowed during a tour of duty with the U.S. Army...” during 130 days from May to October 1946 (Downs 1946, p.87). Downs was limited in the areas of Tinian that he could explore because of the threat of booby traps set by the Japanese that had not been disarmed and Japanese snipers who refused to believe the war had ended (Downs 1946, p.90). He provided a map of the fifteen areas on the island he surveyed and all but five of them were located on the exterior of the island. Of the inland areas, four were clustered in the north of the island while one was in the south (Downs 1946, p.88). The fact that Downs did not survey almost the entire interior of the island almost certainly seems to have been due to the possible danger posed by snipers and booby traps. So as with Gleize, Downs was unable to survey the entire island. Another aspect that is also very similar what occurred with Gleize is that Downs only recorded the birds he observed, including the monarch. More importantly, it is not possible to determine how many monarchs Downs observed. He provides a table of the names of the birds observed, the “average rate of occurrence,” and the “rates of occurrence” (Downs 1946, p.87).

However, because Downs does not provide the total number of occurrences (i.e., the total number of times he observed the monarch) it is not possible to determine the monarch’s relative or actual abundance. Downs’s does provide a narrative account of the monarch consisting of almost three pages of text, but the content is entirely devoted to observations of the monarch’s appearance, habitat, vocalizations, and the behavior of one pair around their nest (Downs 1946, pp.100-103). As the FWS observed, Downs did report the monarch had a restricted distribution, but this was an artifact of military restrictions on what portions of the island could be visited, not necessarily the monarch’s actual distribution. However, the FWS has misleadingly portrayed this fact as providing evidence of the monarch’s imperiled status.

Another aspect of the FWS’s portrayal of Downs’s article is that the agency cited it in the 1999 proposed delisting and the 2004 final delisting but not in the 1985 proposed delisting or 1987 downlisting. If Downs’s article was so significant that it merited mention in the proposed and final delisting then this raises the question as to why it was not in the 1985 proposed delisting or the 1987 downlisting. One likely reason is that the authors of the Federal Register documents from mid-1980s recognized that Downs’s article provided no useful data on the monarch’s overall population, hence it was not included. However, when the FWS authored the proposed and final delisting in 1999 and 2004, respectively, the agency was much more eager to sell the ESA as a success story, and anything that might help, such as using Downs’s article to provide added justification to the monarch’s listing, was employed.

It is remarkable that the FWS is still trying to represent the historical literature on the monarch as ambiguous despite that the agency has known for almost twenty-six years, since the publication of the article by Pratt *et al.*, that this was not the case; that Gleize’s 1945 report could in no way be used to arrive at an overall assessment of the monarch’s population status. While activities prior to and during WW II likely led to low population estimates, the overriding factor in the monarch’s listing has been the FWS’s decision to misrepresent Gleize’s 1945 report as an estimate for the entire population. In addition, the agency’s portrayal of Downs’s article is nearly as misleading.

Either the FWS was unaware of Pratt *et al.*,’s and Engbring and Pratt’s debunking of Gleize’s article as an island-wide survey or the agency chose to ignore these authors’ conclusions. Similarly, either the agency was unaware that Downs’s article was not an island-wide survey or the agency chose to ignore this fact. There are two possible explanations for the FWS’s portrayal of these two pieces of literature; the first is incompetence, the second perfidy. The second explanation is more plausible because it is all but inconceivable that; any marginally competent biologist at the FWS could have interpreted Gleize’s and Downs’s articles as island-wide surveys, the FWS could have misread Pratt *et al.*, and the FWS could have been unaware of another piece of literature that also debunked the agency’s interpretation of Gleize—Engbring and Pratt’s 1985 book chapter that contained information about a species for which so little literature, peer reviewed or otherwise, existed. In addition, Engbring worked for the FWS in the mid-1980s in agency’s Hawaii office, the very same office from which another of the FWS’s biologists authored the 1987 final downlisting rule, so the FWS had to have been aware of his knowledge of, and publications on, the monarch.

The FWS reliance on Gleize’s article brings up the larger issue of the quality of data upon which species are listed. The ESA states:

2004 final delisting, one can compare the quantity of literature the FWS cites as being in support of listing (2 publications), versus the quantity that cast doubt on listing (1 publication).<sup>61</sup> The

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“The Secretary shall make determinations required by subsection (a)(1) solely on the basis of the best scientific and commercial data available to him after conducting a review of the status of the species and after taking into account those efforts, if any, being made by any State or foreign nation, or any political subdivision of a State or foreign nation, to protect such species, whether by predator control, protection of habitat and food supply, or other conservation practices, within any area under its jurisdiction, or on the high seas” (Endangered Species Act, 1973, sec.1533 (4)(b)(1)(A)).

Clearly, Gleize’s article did not represent the “best...data available.” Had the FWS wanted to obtain the best data then it could easily have contacted Robert Owen, the Interior Department employee who at the time was the head of the Trust Territory Conservation Office (TTCO). The monarch’s listing is an indication that the ESA’s “best data” directive is worth little more than the paper on which it is written.

<sup>61</sup> On the side lending credence to the monarch’s listing the FWS cites two sources, Gleize (1945) and Downs (1946). On the other side, the FWS only cites one publication, Marshall (1949), as casting doubt on the monarch’s listing. By pitting two sources, Gleize and Downs, against one, Marshall, the agency clearly implies that there is more historic data that establishes the monarch’s endangered status. This is especially true for those who are unfamiliar with this literature

Even if Gleize’s article was taken out of the equation, because it was not an island-wide survey, this still leaves one publication in support of listing and one detracting from listing. There are, however, two aspects of the 1949 Marshall article that lend it greater weight than Downs’s. First, of all the literature on the monarch from the post-WW II years, Marshall’s is based on what would appear to be by far the most comprehensive survey of Tinian. Marshall’s research, which encompassed the islands of Saipan, Tinian, Guam, and the Palau archipelago, was conducted over the course of a year, from December 1944 to December 1945. In addition, unlike the other authors, Marshall was the only one that made mention of overall abundance, if even in relative terms, of the monarch. That he collected thirty-five specimens indicates he felt the population was sufficiently large for him to take so many birds, and it also indicates that Marshall was likely conducting a fairly vigorous survey. Second, two experts on the avifauna of Tinian, Engbring and Pratt, stated, “Marshall (1949) reported the Tinian Monarch abundant in 1945, and it remains so today” (Engbring and Pratt 1985, p.96). However, they did not mention Downs. This could have been due to an omission or that Marshall’s article was more authoritative. Given the authors’ expertise, the latter is more likely. Third, Marshall’s article was published in a more prestigious journal than Downs’s, the widely read ornithological journal, *The Condor* (Marshall 1949).

Misrepresenting the historical literature on the monarch continued in December 2004 with the publication by the FWS of the *Draft Post-Delisting Monitoring Plan for the Tinian Monarch*. The phrasing used in the draft monitoring plan to characterize the literature is virtually identical to that used in the 1999 proposal to delist and the 2004 final rule on delisting, the most notable aspect of which is the characterization of Gleize’s 1945 article. “[B]ut it is not clear if this report represented the number of birds seen, or an estimate of the total population on the entire island,” the plan stated (U.S. Fish and Wildlife Service 2004d, p.2). The FWS is bent on ignoring the inconvenient fact that Gleize’s publication did not contain an island-wide survey due to the agency’s ongoing effort to misrepresent the historical literature so as to make the monarch’s listing seemed justified.

The FWS has also tried to lend credence to monarch’s listing through press releases the agency issued to announce the 1999 delisting proposal and the 2004 final delisting. The most bald-faced of these appeared in 1999. “Severe habitat loss due to clearing of land for cattle grazing and sugarcane farming prior to World War II, and later extensive construction during the war, led to very low population estimates,” asserts the FWS’s Anne Badgley, then the agency’s director for the Pacific Region (U.S. Fish and Wildlife Service 1999d). “The decision to list the monarch was based on estimates of 50 or fewer birds after World War II. Its numbers have increased considerably in the intervening years,” she added (U.S. Fish and Wildlife Service 1999d). Note how the FWS misleadingly portrays the post-WW II population estimate as unambiguous. The FWS was more circumspect in 2004. “The Tinian monarch was originally listed as an endangered species on June 2, 1970, because the population was extremely small” (U.S. Fish and Wildlife Service. 2004e). However, the overall point remains that, based on the publication by Pratt *et al.*, the FWS must have known since at least 1979 that Gleize’s article was not credible. And yet the FWS has blithely ignored this fact so as to justify the monarch’s listing.

third way in which the FWS misleadingly frames the monarch's listing is to omit a key piece of literature that casts further doubt on the validity of the monarch's listing.<sup>62</sup>

Due to how egregiously the FWS misrepresented the historical literature, as well as omitted literature, it appears the agency deliberately did so in order to justify the monarch's initial listing in 1970, subsequent listing under the ESA of 1973, retention under the ESA for thirty-one years, and finally claiming that the monarch's "recovery" was due the ESA.

There are three possible explanations for why FWS has misrepresented and omitted data contained in the historic literature. First, the author of the proposed rule in 1999 (historical literature in the 1999 proposed and 2004 final rules are identical) did a shoddy job of literature review. This is implausible because it is unlikely that the author of the 1999 proposed rule would be unaware of the two publications debunking the FWS's portrayal of Gleize's article as an island-wide survey, Pratt *et al.* in 1979 and Engbring and Pratt in 1985, and especially because at the time Engbring was a FWS employee. Also, there is very little literature on the monarch so it is highly unlikely that these two publications were simply overlooked. In addition, the author of the 1999 proposed rule was knowledgeable about the avifauna of the Marianas, as he was the lead author for a peer reviewed article on the status of the monarch published in 2000, as well as a peer reviewed article published in 1999 on another species of bird endemic to the Marianas Islands.<sup>63</sup>

Second, the FWS seems to have purposely omitted the conclusion of the 1985 Engbring and Pratt article—that the monarch no longer merited listing—from the 1999 delisting proposal in an attempt to conceal the fact that the monarch was erroneously listed. When the proposed rule was published in 1999, the ESA was under fire and one of the criticisms was that the Act did

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<sup>62</sup> In both the first proposal to delist the monarch, published in 1985, and the resulting downlisting in 1987, the FWS stated, "Biologists who have visited Tinian over the last 10 years have commented on the general abundance of the monarch (Owen 1974; Pratt *et al.*, 1979)" (U.S. Fish and Wildlife Service 1985d, p.45632; U.S. Fish and Wildlife Service 1987a, p.10890). The key publication is by Owen because it was published in 1974 and because it was a report written by the Trust Territory Conservation Office, which meant the Interior Department, the U.S. government agency that at the time administered Tinian (Owen 1974). But the 1999 proposed delisting and the 2004 final delisting did not cite Owen's publication. Given the FWS's track record of misinformation about the monarch, as well as the other so-called recovered species, it would seem that the agency deliberately omitted this publication because it cast doubt on the validity of the monarch's listing under the ESA. This is especially true in the case of Owen's 1974 report because if the monarch was "general[ly] abundan[t]" in 1974, as the FWS characterized the bird in 1987 on the basis of Owen's report, then it was clearly a case of data error. In addition, the article by Pratt *et al.*, was published in a peer reviewed journal, which lent it not only the imprimatur of authority but made the article widely available (Pratt *et al.*, 1979).

<sup>63</sup> Fancy *et al.*, 1999; Lusk *et al.*, 2000.

a poor job recovering species. In addition, the FWS has a long track record of falsely claiming species as recovered.

Third, the FWS may have misrepresented the historical literature because the monarch was one of the thirty-three species Interior Secretary Babbitt announced in May of 1998 would soon be delisted due to recovery. As Babbitt memorably proclaimed; “Our new policy, to emphasize delisting, could alter the terms of the debate over the future of the landmark 1973 conservation law. For we can now finally prove one thing conclusively: The Endangered Species Act works. Period. In the near future many species will be flying, splashing and leaping off the list. They made it. They are graduating.”<sup>64</sup> (A detailed analysis of this episode, and that it turned out to be a sham—because some species were extinct, others were clearly cases of data error, and others improved for factors unrelated to the ESA—is contained in the conclusions of this book, under the heading of “Babbitt’s Proof”). The Tinian monarch was the first of Babbitt’s so-called success stories to be proposed not only for delisting but also for delisting due to recovery. As such, there was likely pressure on the FWS to make good on Babbitt’s claim of ESA success. The FWS states that the proposed delisting was based on a petition submitted by the National Wilderness Institute (NWI) in 1997.<sup>65</sup> But it is curious the FWS waited to act on NWI’s petition until after Babbitt’s announcement. Nevertheless, credit goes to NWI for prodding the FWS because had they not done so the monarch might still be listed.

Another aspect of Babbitt’s “proof” and the Tinian monarch occurred in July 1999 when the FWS pulled out all the stops to announce the proposed delisting of the bald eagle. The eagle was but one of a number of species being considered for delisting, “including the peregrine falcon, Columbian white-tailed deer, and the Tinian monarch butterfly,” according to Cindy Hoffman of the FWS Washington, D.C. Public Affairs Office.<sup>66</sup> While terming the Tinian monarch a “butterfly” is amusing it points out a larger issue, which is that some of the information about the monarch, and the other so-called recovered species, is disseminated by FWS public affairs personnel, not necessarily the biologists who are most knowledgeable about these species. The most notable example of this occurred is Babbitt’s “proof,” which appears to have been due in part to errors in the Public Affairs Office.

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<sup>64</sup> U.S. Department of Interior 1998.

<sup>65</sup> U.S. Fish and Wildlife Service 1999a, pp.8534-35.

<sup>66</sup> Hoffman 1999a.

After the eagle’s proposed delisting, then Director of the FWS, Jamie Clark, piled on the bandwagon and tried to attach the monarch to the coat tails of the charismatic bald eagle. “The bald eagle is not alone on the comeback trail. Joining it [is]...the Tinian Monarch,” she claimed in a speech to FWS personnel. “All of you involved in these recovery efforts deserve tremendous praise for your dedication, your commitment, and your perseverance.”<sup>67</sup> Given that the FWS did virtually nothing in the way of actual on-the-ground conservation for the monarch, one wonders to what Clark was referring. Clark’s misleading statement about the monarch likely also stems from a fundamental lack of knowledge about the species.

### **“CONSERVATION” UNDER ESA**

Conservation measures taken under the ESA for the Tinian monarch were essentially non-existent. First of all, a recovery plan, the “blueprints” for recovery the ESA mandates the FWS produce for every species, was never written for the monarch. Perhaps the FWS knew a recovery plan was superfluous because the monarch was not imperiled. In the 1999 proposal to delist the monarch, the FWS did not list any specific habitat conservation measures that had been undertaken on behalf of the monarch, such as the use of the ESA’s land use control provisions contained in Sections 7 and 9 of the Act.<sup>68</sup> The U.S. Navy has had to consult with the FWS before conducting training exercises or other activities, but these have had little effect on the monarch because of the type of activities and where they are held.<sup>69</sup>

Relatively minor amounts of development have taken place on some regions of the

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<sup>67</sup> Clark 1999b.

<sup>68</sup> U.S. Fish and Wildlife Service 1999a, p.8536.

<sup>69</sup> One type of activity is training exercises, the largest of which occurs ever few years and involves thousands of troops, some of which practice amphibious landings. These exercises are limited to Exclusive Military Use Area (EMUA), the northern half of the lands leased by the Navy that constitute approximately 35% of the island. However, military exercises, especially those that are large scale and therefore would seem to have the greatest potential to destroy habitat or kill monarchs, have been, and in all likelihood will be, limited to the northern-most portion of the EMUA. Indeed, as the FWS stated when the monarch was delisted; “These activities may involve clearing of forest in limited areas, but in a letter to our Pacific Islands Fish and Wildlife Office dated January 28, 2004, the U.S. Navy stated it ‘has no foreseeable need to adversely modify habitat on Tinian, in fact the natural forest habitat is essential to the types of non-intrusive military training’ conducted on Tinian” (U.S. Fish and Wildlife Service 2994a, p.56371).

island, primarily the construction of an airport (for which the Federal Aviation Administration had to consult with FWS), the building of a Voice of America antenna (for which they did not consult with FWS but for which habitat of approximately 50-60 birds was cleared), and a private casino for which consultation was done but the FWS's directives were ignored. No mitigation was provided for these activities because Tinian is a fairly autonomous island, even though it is technically under the jurisdiction of the U.S.<sup>70</sup> Furthermore, it appears that construction of the Voice of America antenna violated the ESA, but it is not clear if the FWS took legal action. In any case, all of these development activities have had very little impact on the monarch because there is still a great deal of habitat, much of it contiguous and high quality. Indeed, the FWS admitted as much. "If all forested lands on Tinian were developed, except for the native limestone forest along steep cliff faces and the Navy-leased lands, we estimate that enough habitat would remain to support a population of 41,791 monarchs," which constituted 75% of the population, according to the FWS.<sup>71</sup>

### **DELAYED DELISTING**

While the Tinian monarch never should have been listed under the ESA, the bird's thirty-one year tenure under the Act sheds light not only on its "conservation" but also on how the FWS administers the Act. One issue is how and perhaps why personnel are assigned tasks. The 1985 proposal to delist the monarch was written by John Engbring, the FWS biologist who was one of the world's leading experts on the birds of Micronesia. However, Engbring did not author the final rule in 1987 when the FWS decided instead to downlist the monarch. That task fell to Derral Herbst, a FWS botanist and expert on the plant life of the tropical Pacific islands, especially Hawaii. This is curious because at the time Engbring was still a FWS employee. It appears that FWS administrators might have purposely pulled Engbring off the job of writing the final rule because they knew, based on his proposed rule, he was going to conclude two things that would reflect badly on the ESA; the monarch should be delisted, and, delisting should be

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<sup>70</sup> Marshall 1997.

<sup>71</sup> U.S. Fish and Wildlife Service 1999a, p.8536.

due to data error.<sup>72</sup>

Over the history of the ESA the FWS has been loath to delist due to data error. Fourteen of the twenty-one species the agency claims as recovered are actually partial or total cases of data error. So it appears that the agency put an unqualified biologist, Herbst, in charge of writing the final rule because he would likely be receptive to input and direction from superiors—such as that the monarch should be downlisted, not delisted, and that the downlisting was due to nebulous reasons, not data error—due to his lack of knowledge about the monarch. After all, one of the easiest ways to manipulate any process, whether reclassifying an endangered species

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<sup>72</sup> In 1985 the FWS proposed to delist the monarch, and, as noted above in the section on data error, the FWS concluded that the monarch's rebound was due to data error. The author of the 1985 proposal to delist the monarch was John Engbring, the FWS biologist who in 1982 had completed a comprehensive survey of the forest birds of Micronesia, which was subsequently published in report form by the FWS, as well as the co-author of the book chapter that debunked the validity of Gleize's article (Engbring et al., 1986). Engbring was one of a very, very small handful of experts on the birds of the Micronesia, having authored or co-authored numerous reports, several peer reviewed journal articles, and a field guide and checklist of birds of this region (Pratt et al., 1980; Engbring and Ramsey 1984. Engbring and Pratt 1985; Pyle and Engbring 1985; Engbring et al., 1986; Engbring 1987; Engbring and Ramsey 1989; Engbring and Suzuki 1988; Engbring and Englis 1988; Engbring and Fritts 1988; Engbring 1989; Engbring et al., 1990).

On the other hand, the 1987 final rule that downlisted the monarch was authored by Derral Herbst, a FWS botanist with expertise on the plant life of the Pacific islands, especially Hawaii (Fosberg and Herbst 1975; Conant and Herbst 1983; Lorence et al., 1988; Thomas et al., 1989; Wagner et al., 1990; Herbst and Wagner 1992; Herbst 1994; Whittow et al., 1995; Wagner et al., 1999a; Wagner et al., 1999b).

It is curious that Engbring was not also the author of the final rule, as it was published only a year-and-a-half after the proposed rule, and because at the time he was still working for FWS in the agency's Pacific Island Region office in Hawaii, the same office where Herbst was stationed.

It is not clear why Herbst was given the task of writing the final rule, especially as Engbring possessed far more expertise, but there are two factors, both of which point to the same potential explanation. First, is Engbring's assessment in the proposed rule, and especially in the 1985 book chapter he co-authored with Pratt, that the monarch was a case of data error. Such honesty would not have been welcome by leaders of the FWS and Interior Department because they were intent on portraying the ESA as a success. Second, is the timing the proposed delisting for the monarch (November 1985) and the delisting of the three birds from the archipelago of Palau, islands also in the western tropical Pacific, for which Engbring was the author of the final rule (September 1985). In the final rule for the Palau birds, Engbring all but concluded that data error was the cause of delisting, as the profile on these three birds details. His superiors in the FWS and Interior Department were probably very unhappy with him for all but labeling the Palau birds as data error, but they were likely unable to take him off the task of writing the proposal to delist the monarch because he was likely already involved in writing the proposal by the time the Palau birds were delisted. However, once the monarch's proposal was published, there seems to have been a decision made to pull Engbring off the task of writing the final rule in 1987 because he appeared poised to conclude in the final rule that the monarch was a case of data error. As a result, the agency replaced him with Derral Herbst who, due at least in part to his lack of expertise, was likely more amenable to input from superiors who had very strong political interests in not having the monarch's delisting portrayed as data error.

There is an additional piece of evidence of the FWS's desire to portray the Palau birds as recovered, not data error, and how this possibly related to the Tinian monarch. In 1989 the FWS delisted the rydberg milk-vetch, a plant from Utah. The milk-vetch was the first species since the Palau birds to be delisted at once over its entire range and claimed as recovered (even though the American alligator was delisted in 1987, this was only for those portions of its range from which it had already been delisted, a multi-step process that started in 1975). Even though it was clear from reading the final Federal Register rule that the milk-vetch was a case of data error, the FWS officially classified the plant as recovered. Given this similarity between the Palau birds and the milk-vetch, it seems plausible that those at the FWS and Interior Department in charge of the endangered species program may have decided to pull Engbring off the task of writing the 1987 final Federal Register rule for the Tinian monarch because of an effort at the time to mask the number of species delisted due to data error.

or the results of an election, is to have unqualified people do the bidding, whether unwittingly or not, of those seeking a predetermined outcome.

### **BOGUS REASONS FOR DOWNLISTING, INSTEAD OF DELISTING**

When the FWS decided in 1987 to downlist the monarch from endangered to the less-imperiled status of threatened, the agency claimed three issues precluded delisting: potential introduction of the brown tree snake, the small size of the island of Tinian and the lack of another natural or captive population of monarchs, and an insect that was eating tangantangan, the introduced shrub that comprised most of the monarch's habitat.<sup>73</sup> All three reasons were spurious and provide a further indication that the FWS was grasping at any reason not to delist the monarch.

Concern over potential introduction of the brown tree snake on the surface might have appeared to be a legitimate reason not to delist but it was actually a red herring. This is because the brown tree snake had, and still has, the potential to devastate the forest bird population of Tinian, regardless of whether the monarch is listed under the ESA. The brown tree snake was introduced to Guam, an island approximately 250 km. south of Tinian, in the 1950s, likely from a military ship transporting cargo from New Guinea or Australia where the snakes are native.<sup>74</sup> By 1984, the snake inhabited much of Guam and tragically decimated the native birds. Of the eleven bird species or sub-species native to Guam, five were driven to extinction by the snake, and four were extirpated.<sup>75</sup> This occurred because the forest birds of Guam had not evolved with the snake. So the birds were susceptible to being preyed on by the snake, as they had developed no natural defensive behavior. The fear was, and still is, that brown tree snakes could be introduced accidentally to Tinian with similar disastrous results as occurred on Guam. Between 1994 and 2003, there were seven reports of snakes on Tinian. Even though several of the snakes described by witnesses resembled brown tree snakes, none of them could be confirmed as such.<sup>76</sup>

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<sup>73</sup> U.S. Fish and Wildlife Service 1987a, p.10890.

<sup>74</sup> Fritts et al., 2005.

<sup>75</sup> U.S. Geological Survey. ND. The Brown Tree Snake.

<sup>76</sup> U.S. Fish and Wildlife Service 2005b, pp.3-4.

To try to prevent brown tree snakes from invading Tinian, in 1997 a cargo quarantine facility was built and an employee of the Commonwealth of the Northern Mariana Islands (CNMI) Division of Fish and Wildlife maintained and monitored some thirty snake traps in the facility as well as the port.<sup>77</sup> In all likelihood the CNMI would have implemented these measures independent of the monarch's listing under the ESA, as the FWS admits; "The delisting of the Tinian monarch is not expected to influence the current and on-going brown tree snake control and prevention programs in the CNMI. Funding for and implementation of these programs are not dependent on species protected under the [Endangered Species] Act."<sup>78</sup> These statements are remarkable because they reveal that the FWS, which raised the specter of the brown tree snake threatening the Tinian monarch, misrepresented, probably purposely, the link between snake control and the ESA. The potential threat of the brown tree snake to the indigenous wildlife of Tinian was, and is, so enormous that efforts to prevent it from invading would have occurred whether the ESA existed or not. While the FWS admitted this in 1999, the agency just as easily could have done so in 1987 when it downlisted the monarch, in 1985 it proposed to delist the bird, or even earlier. In short, one reason the FWS cited in 1987 for retaining the monarch under the protection of the ESA was essentially bogus.

Second, the FWS's concern over the small size of the island of Tinian and the lack of another wild or captive population of Tinian monarchs is misleading. As the theory of island biogeography explains, there is a rough correlation between habitat size and the likelihood that a species will go extinct; the smaller the habitat, the greater the likelihood of extinction. However, there is no getting around the fact that the monarch is endemic to Tinian, which is, after all, a small island. Thus, the FWS's concern over small size of the monarch's habitat is constrained by the immutable realities of geography and evolution, factors over which the ESA obviously has no influence. Also, if the FWS was so concerned in 1987 about the possible introduction of the brown tree snake, and the potential extinction of the monarch as a result, then the agency could have established a captive population of monarchs either on Tinian or elsewhere. Retaining the monarch under the Endangered Species Act was not necessary for this to occur. However, the FWS never did establish a captive population, an indication that the agency truly did not consider

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<sup>77</sup> U.S. Fish and Wildlife Service 1999a, p.8536.

<sup>78</sup> U.S. Fish and Wildlife Service 1999a, p.8536.

the brown tree snake a pressing issue but raised it, and the small size of the island of Tinian, in 1987 as a pretext for retaining the monarch on the list of endangered and threatened species.

Third, was the FWS's concern about an aphid-like insect that was defoliating tangantangan, the shrubby legume introduced after WW II that came to comprise the majority of the monarch's habitat. There are, however, two aspects of this supposed threat that bear examination. One, in 1987 the FWS stated that tangantangan was, "the only habitat for the monarch."<sup>79</sup> This is patently false. The first comprehensive survey of the monarch, conducted by the FWS's John Engbring and colleagues in 1982, and published in 1986, found monarchs not only in tangantangan but also in two other habitat types; non-native secondary forest, and the remnant native limestone forest.<sup>80</sup> Two, the FWS knew full well by 1985 that the insect eating the tangantangan was no longer a threat. "This insect apparently no longer poses a threat to *Leucaena* [the scientific name for family of plants that includes tangantangan]," stated the FWS. "According to Hawaiian Agronomics (1985), biological control insects were released in 1981 and by 1985 the 'mealy bugs' were no longer considered a problem. Presently there is no indication of defoliation in the tangantangan forests on Tinian."<sup>81</sup> Even though the report by Hawaiian Agronomics was published after the 1985 proposed rule to delist, the FWS had over a year to incorporate the report's conclusions into the 1987 final rule. However, the FWS failed to do so, thereby conveniently omitting any mention of the report in the 1987 decision to downlist instead of delist. Note that these two instances of omitting important information occurred in the Federal Register rule authored by Herbst, the FWS botanist with limited knowledge of the monarch.

A further indication that habitat defoliation was not a threat is that no mention of the insect, or defoliation caused by it, is contained in the 1999 proposal to delist the monarch. However, when the FWS delisted the monarch in 2004 the agency resurrected the so-called threat of insect defoliation. "The psyllid insect that was once thought to be a potential threat to monarch habitat in 1987 is now known not to be a threat," claimed the FWS.<sup>82</sup> As already noted,

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<sup>79</sup> U.S. Fish and Wildlife Service 1987a, p.10891.

<sup>80</sup> Engbring et al., 1986.

<sup>81</sup> U.S. Fish and Wildlife Service 1996d, p.49.

<sup>82</sup> U.S. Fish and Wildlife Service 2004a, p.56372.

the FWS knew full well by 1985, not 1987, that the insect posed no threat.

Another reason why the so-called threat of insect defoliation of tangantangan was a ploy by the FWS has to do with the composition of the monarch's habitat. The monarch occupies around 62% of Tinian. Of this, approximately 7% is remnant native forest and the remaining 93% is a combination of tangantangan and non-native secondary forest.<sup>83</sup> Of the introduced vegetation, 3,821 acres is tangantangan and 1,900 acres is secondary forest. These numbers do not, however, give an accurate reflection of the value of each habitat type to the monarch. The remnant native forest provides habitat for 29% of the population, secondary forests 28%, and tangantangan 43%. The reason for the disproportionate percentage of monarchs in the native forests is that this habitat type is superior. Hence, the monarch population in the native forest habitat is about five to six times as dense as in either of the two non-native habitat types.<sup>84</sup> If, according to the FWS, the aphid-like insect was such a potentially grave threat to the monarch's existence, then the possible loss of all tangantangan habitat would mean the loss of roughly 43% of the monarch's population, hardly the flirting-with-extinction scenario portrayed by the FWS.

### **LITTLE HUMAN-CAUSED HABITAT DESTRUCTION**

As for the issue of human-caused habitat destruction or degradation, there are three main factors why there has been very little potential for this to occur. The FWS has been aware of these factors since at least 1985 when the agency published the proposal to delist the Tinian monarch.

One, the U.S. Navy, which leases 71% of Tinian for strategic and training purposes, had signed a fifty years lease in 1983 with the option for another fifty years. The Navy lease lands contain large amounts of monarch habitat. Of the 17,856 acres leased by the Navy, roughly one half is off limits, as it is used for military purposes, but cattle grazing and some other uses are allowed on the other half, which means that much of the Navy land is secure monarch habitat. The FWS finally got around to admitting in 1999 that the Navy lands were secure. According to the FWS, military training activities in the 8,923 acres that are off limits "has had little to no

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<sup>83</sup> U.S. Fish and Wildlife Service 2004a, p.56370.

<sup>84</sup> U.S. Fish and Wildlife Service 1996d, p.42.

impact on the Tinian monarch population in the past and we do not expect it to impact this species in the future.”<sup>85</sup>

Two, as for 29% of the island not leased by the Navy, potential development is unlikely to impact the monarch substantially for a couple of reasons. First, the Navy lease lands, which also are not likely to see much development in the future, support an overwhelming portion of the monarch population; 70%, or some 39,000 monarchs.<sup>86</sup> So even if in the event, albeit so remote that it is virtually inconceivable, that the monarch’s entire habitat outside the Navy lands was destroyed, there would still be plenty of habitat protected by the Navy.

Three, the remnant native forests are protected by dint of their topography and geography. They lie at the base of sheer limestone cliffs and as a result they are very difficult to access and “cannot be developed,” according to the FWS.<sup>87</sup> Of these forests, which contain 29% of the monarch’s total population, approximately 30% are on Navy lands, which afford this habitat yet another layer of protection. The limestone forests on the Navy lands are designated “no wildlife disturbance,” which affords them a heightened level of protection.<sup>88</sup>

In short, the reasons raised by the FWS for not delisting the monarch in 1987, but downlisting it instead, were bogus. The FWS knew full well that the monarch’s habitat was secure, but the agency chose to portray the habitat as insecure as a ruse to keep the monarch listed under the ESA. If, in fact, the FWS was truly not aware of the various factors discussed above, which show quite clearly that by at least 1986 the monarch’s habitat was secure, then the agency was stunningly ignorant of the issues surrounding the monarch’s conservation.

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<sup>85</sup> U.S. Fish and Wildlife Service 1999a, p.8535. The agency also stated, “On the other Navy-leased lands that are available for non-military activities, large portions already contain fields suitable for grazing, and grazing in these areas is not likely to significantly affect the monarch population” (U.S. Fish and Wildlife Service 1999a, p.8535). Furthermore, the FWS does not anticipate that agriculture will have much impact, and “[b]ased on past trends on Tinian, we do not anticipate major construction activities on Navy-leased lands” not used for military activities (U.S. Fish and Wildlife Service 1999a, p.8535). One of the main reasons for the FWS’s belief that all the Navy lands will remain as secure habitat for the monarch for the foreseeable future is that the Navy will almost certainly renew their lease for another fifty years, starting in 2033 (U.S. Fish and Wildlife Service 1999a, p.8535). An indication of the Navy’s intentions was provided in 2000 when the Commander in Chief, U.S. Pacific Fleet stated that the Navy had a “long-term strategic need to continue using the area for military training” (Fargo 2000). Even though the FWS came forward with more specific information about the Navy lands in the late 1990s, the agency knew in 1985, when delisting was initially proposed, that the monarch habitat on Navy lands was secure.

<sup>86</sup> U.S. Fish and Wildlife Service 2004a, p.56370.

<sup>87</sup> U.S. Fish and Wildlife Service 1999a, p.8536.

<sup>88</sup> U.S. Fish and Wildlife Service 2004a, p.56371.

Delay in delisting the monarch prompted the House and Senate of the Northern Mariana Legislature to pass a joint resolution in 2002 calling for the monarch to be delisted. The resolution mentioned that the monarch was one of the species Babbitt claimed in 1998 would be delisted soon, as “proof” the ESA worked, and that the 1999 proposed delisting had yet to be finalized. One of the motivations behind the resolution was that the continued listing of the monarch under the ESA could obstruct the permitting process for a new landfill.<sup>89</sup> This raises the possibility that FWS retained the monarch on the list of endangered and threatened species for thirty-one years so that the bird could be used as a land use control tool. When the FWS finally delisted the Tinian monarch in 2004, the agency continued its long-standing practice of making deceptive and misleading claims about the monarch’s conservation.<sup>90</sup>

## **MONITORING PLAN**

There is a postscript of sorts for the Tinian monarch. One aspect of the 1988 amendments to the ESA is the requirement that the FWS monitor species delisted due to recovery for at least five years even if such species, like the monarch, are actually cases of data error. Despite that the monarch was a case of data error, the FWS wrote a stand-alone monitoring plan for the monarch, which was unnecessary and a waste of time and money. The FWS could have simply incorporated monitoring criteria into the final delisting rule, as the agency did for the gray whale.

One notable aspect of the Monitoring Plan is that it continued to distort the literature on which the FWS based the monarch’s listing. “The decision to list the monarch as endangered was based on a report by Gleize (1945) of 40-50 monarchs on Tinian after WW II (52 FR

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<sup>89</sup> Commonwealth of the Northern Mariana Islands. 2002.

<sup>90</sup> “The Tinian monarch was originally listed as an endangered species on June 2, 1970, because the population was extremely small,” the agency stated. “The primary threat to the species was habitat loss. This resulted both from forest clear-cutting prior to World War II for cattle grazing and sugarcane farming, and from extensive construction during the war. The monarch began to thrive as soon as tangantangan forests grew back, replacing the native forests” (U.S. Fish and Wildlife Service 2004b). As with the literature the FWS cites as having been the sources of the monarch’s listing, a close reading of this statement is necessary. The FWS opens by stating that the monarch’s population was “extremely small” when it was listed in 1970 despite that this is not true. Even though the FWS admits that habitat destruction prior to and during World War II impacted the monarch, the implication of the last sentence, especially following the first sentence, is that the regrowth of habitat for the monarch, and hence the monarch’s return to a large and healthy population, is somehow connected to the species’ listing under the ESA.

10890), but it is not clear if this report represented the number of birds seen, or an estimate of the total population on the entire island,” stated the FWS.<sup>91</sup> As documented above, it is very clear that the 40-50 monarch reported by Gleize were only the birds he saw, not a total population estimate.

Another aspect of the Monitoring Plan that is business-as-usual was that the FWS could not bring itself to admit the obvious; the monarch is a case of data error. In addition, the Plan makes no mention of any actions taken under the ESA for the monarch that conserved or restored habitat. Perhaps aware of this, the Monitoring Plan tries to emphasize the need for habitat conservation. “The future survival of the monarch is dependent on the availability of sufficient forest habitat,” states the Plan. “Monitoring of land use and forest clearing on Tinian therefore is necessary to help establish whether the monarch is threatened by the destruction, modification, or curtailment of its habitat or range.”<sup>92</sup> While it’s axiomatic that the monarch, or any species for that matter, depends on sufficient habitat, the Plan fails to put this issue into context. As explained in this profile, most of the monarch’s habitat is very secure and faces no immediate threats. It seems the FWS is trying to raise the specter of habitat destruction to justify the unnecessary Monitoring Plan, in a similar way the agency raised the specter of the brown tree snake to justify downlisting the monarch in 1987 instead of delisting, as was warranted.

## **CONCLUSIONS**

The Tinian monarch simply cannot be considered an ESA success, or to have recovered due to the Act, because it is a case of data error. By the time the FWS listed the monarch under the ESA, in all likelihood the birds was already recovered from human-caused habitat destruction, especially sugarcane farming and World War II. Furthermore, the FWS and other supporters of the Act have portrayed the monarch’s conservation inaccurately, some of which appears to have been done deliberately to conceal the fact that the ESA has had virtually nothing to do with the resurgence of the Tinian monarch.

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<sup>91</sup> U.S. Fish and Wildlife Service. 2005b, p.2.

<sup>92</sup> U.S. Fish and Wildlife Service 2005b, p.3.