A WILD SUCCESS

A Systematic Review of Bird Recovery Under the Endangered Species Act

Center for Biological Diversity • June 2016
Appendix A: Population Trend Summary For All Threatened and Endangered Birds

GROUP 1
97 SPECIES WITH POPULATION TRENDS BETWEEN ENDANGERED SPECIES ACT LISTING AND THE PRESENT
The ‘akiapōlā’au has been reduced to a few isolated subpopulations on the island of Hawaii by logging, grazing and development. The bird's subpopulations continue to be threatened by disease as well as competition with, and predation by, invasive species. It was still common in 1903, but it was rare by 1967, when it was listed as endangered. After listing the population grew from 1,496 birds in five subpopulations in 1977 to about 1,900 birds in two subpopulations in 2009.

The ‘o’u declined due to deforestation, livestock grazing, feral ungulates, and invasive species and disease. It was extirpated from four of six islands by the 1930s. There were very few sightings of the bird after the species was listed in 1967. It was last seen on the island of Hawaii in 1987 and on Kauai in 1989. It may well be extinct.

The Aguiguan nightingale reed-warbler, or gaga karisu, was endemic to dense native forest understories on the island of Aguiguan in the Northern Mariana Islands. Prior to 1945, much of its habitat was destroyed or degraded by farming and development. After being listed as endangered in 1970, it was only seen a few times, with the last sighting in 1995. The bird was not found during targeted surveys in the 2000s and is likely extinct.
**ALEUTIAN CANADA GOOSE**

**Trend Since Listing:** Increased

**Growth:** 8,191%

**Status:** Delisted

- Listed: 1967
- Downlisting: 1990
- Delisting: 2001
- Recovery Plan: 1991
- Critical Habitat: None

The Aleutian Canada goose was feared extinct due to predation by nonnative foxes introduced by hunters, and to a lesser degree by excessive hunting and loss of wintering and migration habitat. It was listed as an endangered species in 1967. Its population grew from about 790 birds in 1974 to 54,500 in 2002, the year after it was removed from the endangered species list. Its recovery occurred seven years earlier than projected by its recovery plan.

**AMERICAN PEREGRINE FALCON**

**Trend Since Listing:** Increased

**Growth:** 4,131%

**Status:** Delisted

- Listed: 1970
- Downlisting: 1984
- Delisting: 1999
- Recovery Plan: 1991
- Critical Habitat: 1977

The American peregrine falcon was threatened by the use of DDT and other organochlorine pesticides, which caused eggshell thinning that led to reproductive failure and population declines. The banning of DDT, captive breeding efforts, and nest protections allowed the falcon to increase from 39 breeding pairs in the lower 48 U.S. states in 1975 to 1,650 pairs as of 1999, the year in which the species was delisted.

**ARCTIC PEREGRINE FALCON**

**Trend Since Listing:** Increased

**Growth:** 619%

**Status:** Delisted

- Listed: 1970
- Downlisting: 1984
- Delisting: 1994
- Recovery Plan: 1991
- Critical Habitat: None

The Arctic peregrine falcon population declined because of eggshell thinning due to DDT and other organochlorine pesticides. Its listing as endangered in 1970, along with the endangerment of other birds of prey, prompted the ban of DDT in 1972. Counts of migratory Arctic falcons at Cape May increased from 103 in 1976 to 741 in 1994. The species was downlisted to threatened in 1984 and delisted in 1994.
**ATTWATER’S GREATER PRAIRIE CHICKEN**

*Status:* Endangered  
*Listed:* 1967  
*Recovery Plan:* 2010  
*Critical Habitat:* None  

The Attwater’s greater prairie chicken has primarily been threatened by loss of tall grass prairie habitat from agricultural, urban and industrial expansion. Disease, parasites and severe weather may also have contributed to its decline. Historically, an estimated 1 million birds occupied vast coastal prairies in Texas and Louisiana. The population had dropped to 1,118 by 1967 and fewer than 1,000 by 1986, plunging below 100 between 1996 and 2013. In 2016 there were 126 birds.

**AUDUBON’S CRESTED CARACARA (FLORIDA DPS)**

*Status:* Threatened  
*Listed:* 1987  
*Recovery Plan:* 1999  
*Critical Habitat:* None  

Audubon’s crested caracara declined due to the conversion of its habitat to areas slated for urban development and agricultural production, especially of citrus and sugarcane. Its population declined by a large but unquantified amount in the 1900s, leading to its listing as threatened in 1987. It was stable between 1991, when the population was between 400 and 500 birds, and 2009, when more than 500 were estimated.

**BALD EAGLE (CONTINENTAL U.S. DPS)**

*Status:* Delisted  
*Listed:* 1967  
*Downlisting:* 1995  
*Delisting:* 2007  
*Recovery Plan:* 1999  
*Critical Habitat:* None  

The bald eagle declined throughout the lower 48 states, and was extirpated from most of them, due to habitat loss, persecution and DDT-related eggshell thinning. The banning of DDT; increased wetland protection and restoration; and an aggressive, mostly state-based reintroduction program caused eagle pairs to soar from 417 in 1963 to 11,040 in 2007, when the bird was removed from the endangered species list.
BERMUDA PETREL (CAHOW)

*Trend Since Listing:* Increased 367%

*Growth:* 7,346%

*Status:* Endangered

*Listed:* 1970

*Recovery Plan:* 2005

*Critical Habitat:* None

The Bermuda petrel, or cahow, nests in Bermuda and is seen off the North Carolina coast. It was driven to near-extinction by hunting, loss of its beach nesting habitat, and predation by and competition from other birds and invasive rats. Its population increased from 24 nesting pairs when it was listed in 1970 to 112 in 2015. A new nesting colony was created by translocation, and as of 2015 all five of its colonies were fairly well protected from destruction, predation and competition.

BLACK-CAPPED VIREO

*Trend Since Listing:* Increased 268%

*Growth:* 367%

*Status:* Endangered

*Listed:* 1987

*Downlisting:* Initial 2013

*Recovery Plan:* 1991

*Critical Habitat:* None

The black-capped vireo is threatened by habitat loss; cowbird brood parasitism; vegetational succession; and overgrazing by domestic, native and introduced species. Threats have decreased since it was listed as an endangered species in 1987. The estimated number of territorial males in its four largest populations increased from 153 in 1987 to 11,392 in 2013. A portion of this growth is due to survey effort; regardless, the species is known to have increased substantially as a whole.

BROWN PELICAN (ATLANTIC DPS)

*Trend Since Listing:* Increased 268%

*Growth:* 12,000

*Status:* Delisted

*Listed:* 1970

*Delisting:* 1985

*Recovery Plan:* 1980

*Critical Habitat:* None

The Atlantic population of the brown pelican ranges from the eastern Gulf of Mexico along the Atlantic Coast to New England. The population was driven to near-extinction by DDT-caused eggshell thinning, habitat loss and breeding-ground disturbance. On the Atlantic Coast, the pelican had increased from 2,796 pairs in 1970, when it was listed as endangered, to 10,300 in 1985, when it was delisted. On the eastern Gulf Coast, it increased from 5,100 pairs in 1970 to 5,682 in 1999.
**BROWN PELICAN (WESTERN GULF COAST DPS)**

*Trend Since Listing:* Increased  
*Growth:* 421,225%

**Status:** Delisted  
**Listed:** 1970  
**Delisting:** 2009  
**Recovery Plan:** 1980  
**Critical Habitat:** None

The western Gulf Coast brown pelican population declined to near-extinction in Louisiana, Texas and Mississippi due to unregulated hunting, habitat loss, and reproductive failure from DDT-caused eggshell thinning. It was listed as endangered in 1970. The population increased from four nests in 1970, to 21,266 in 2005, declined to 12,037 in 2006 after Hurricane Katrina, then increased to 16,853 in 2007. It was delisted in 2009. There were 16,317 nests in 2010 prior to the Deepwater Horizon catastrophe.

**CALIFORNIA BROWN PELICAN**

*Trend Since Listing:* Increased  
*Growth:* 1,464%

**Status:** Delisted  
**Listed:** 1970  
**Delisting:** 2009  
**Recovery Plan:** 1983  
**Critical Habitat:** None

The California brown pelican declined due to habitat loss, reproductive failure from DDT-related eggshell thinning, and toxic exposure to the pesticide endrin. The banning of DDT and protection of nesting areas are responsible for its recovery. There were 748 nests in 1970 when it was listed as endangered. The population continued to decline to a low of 466 nests in 1978, then increased (though with great annual variation) to 11,695 nesting pairs in 2006.

**CALIFORNIA CLAPPER RAIL**

*Trend Since Listing:* Declined  
*Growth:* -77%

**Status:** Endangered  
**Listed:** 1970  
**Recovery Plan:** 2013  
**Critical Habitat:** None

The California clapper rail was initially threatened by hunting until the Migratory Bird Act was passed in 1913. Contemporary threats to the species, including agriculture and salt ponds, affect the bird's salt-marsh habitat. Its total population fell from 5,100 birds in 1970 to about 500 in 1991. Since then, population numbers had climbed to an estimated 1,167 for 2009 through 2011.
The California condor was nearly driven to extinction by DDT, lead poisoning from ingested bullet fragments, and wanton killing. Lead poisoning is currently the primary factor limiting its recovery in Southern California, Arizona and Baja California. Listed as endangered in 1967, condors numbered 55 in the wild and one in captivity in 1968. In 1987, all the wild birds were captured to save the species from extinction. It was reintroduced in 1992 and grew to 270 wild and 167 captive birds in 2015.

The California least tern declined dramatically in the late 19th century under intense pressure from the millinery trade. Twentieth-century declines were driven by development, recreational crowding at beaches, and human-induced predator expansion. When listed in 1970, just tern 225 pairs remained. Intensive habitat protection, predator control and recreation management increased the population to 1,200 pairs in 1988 and a high of 7,117 in 2009. The species has since declined to 4,353 pairs in 2013.

The Cape Sable seaside sparrow’s habitat has been dramatically degraded by agriculture-driven disruption of natural flooding regimes in the Florida Everglades, where woody and nonnative species are encroaching upon its grasslands habitat. Its population was devastated by a 1935 hurricane, stayed small until 1955, and grew to 6,656 birds in 1981. It was stable through 1992 but crashed to 3,312 in 1993. Since 1998 it has hovered at around 3,000, estimated at about 3,200 birds in 2015.
CARIBBEAN BROWN PELICAN

Trend Since Listing: Increased
Growth: 24%
Status: Delisted
Listed: 1970
Delisting: 2009
Recovery Plan: 1986
Critical Habitat: None

The Caribbean brown pelican nests throughout the Caribbean, including Puerto Rico and the U.S. Virgin Islands. It declined due to pesticides, habitat loss, killing, nest-site disturbance, and possibly changes in oceanic food production/availability. Nesting on U.S. islands declined from 475 in 1980 to 201 in 1984, then increased in the 1990s to 590 in 2009, when it was delisted from the Endangered Species Act as a recovered species. The number of nests averaged 350 in the 1980s and 528 in the 2000s.

COASTAL CALIFORNIA GNATCATCHER

Trend Since Listing: Unknown
Growth: ?
Status: Threatened
Listed: 1993
Delisting: Initial 2014
Recovery Plan: None
Critical Habitat: 2000

The coastal California gnatcatcher was listed as threatened in 1993 due to habitat loss caused by urban and suburban sprawl and agricultural expansion. It was locally common in the 1940s but very rare by 1961. The only available rangewide U.S. population estimate (thought to be reasonably accurate) stood at 2,562 in 1993. As of 2016, efforts were underway to obtain a second rangewide estimate.

CRESTED HONEYCREEPER (‘ĀKOHEKOHE)

Trend Since Listing: Stable
Growth: 1%
Status: Endangered
Listed: 1967
Recovery Plan: 2006
Critical Habitat: 2016

The crested honeycreeper, or ʻākohekohe, is threatened by avian disease connected to climate change; competition with and predation by nonnative species, and habitat loss and degradation caused by development and feral ungulates. Between 1980 and 2014, the ʻākohekohe population generally remained stable at around 3,800 birds. A 1999 estimate of 6,745 was likely high due to extrapolation; however, a significant increase in core-range density was observed in that year.
DUSKY SEASIDE SPARROW

- **Trend Since Listing:** Declined
- **Growth:** -100%
- **Status:** Delisted
  - Listed: 1967
  - Delisting: 1990
- **Recovery Plan:** 1978
- **Critical Habitat:** 1977

The dusky seaside sparrow was driven extinct by DDT spraying, destruction of its habitat for mosquito control, and conversion of its habitat to cattle pastures and suburban and industrial development. The species was reduced from about 5,000 to 1,500 pairs between 1942 and 1953 by DDT spraying. Habitat destruction reduced it to about 927 pairs in 1968 and 161 in 1970. It was extirpated from the wild by 1980 and extinct altogether by 1987.

EVERGLADE SNAIL KITE

- **Trend Since Listing:** Increased
- **Growth:** 75%
- **Status:** Endangered
  - Listed: 1967
- **Recovery Plan:** 1999
- **Critical Habitat:** 1977

The Everglade snail kite is threatened by freshwater marsh destruction, periodic dewatering by water diversions, low population numbers, rangewide drought and hurricanes. The kite was listed in 1967. Based on extrapolation of estimates and growth rates, the species' 1969 population was estimated at 971 birds. It grew to 3,577 in 1999, fell to 662 in 2009, then grew relatively steadily to 1,700 in 2014.

FLORIDA GRASSHOPPER SPARROW

- **Trend Since Listing:** Declined
- **Growth:** -59%
- **Status:** Endangered
  - Listed: 1986
- **Recovery Plan:** 1999
- **Critical Habitat:** None

The Florida grasshopper sparrow declined due to the conversion of 80-85% of its historical grassland habitat to roads, housing developments, farms and livestock pastures. Most remaining grasslands have been degraded by fire suppression. The known population increased from 140 to 340 singing males between 1986, when it was listed as an endangered species, and 2001. It then declined precipitously to 90 in 2001, and 57 in 2015. In 2014 it was predicted to go extinct in 3 to 5 years.
The Florida scrub-jay declined due to habitat destruction, degradation and fragmentation by agricultural conversion, development and disruption of natural fire regimes. Fire suppression caused increased shrub/tree encroachment and canopy closure. The bird's population declined from an estimated 27,000 breeding pairs in pre-settlement times to 13,800 by the late 1880s, then to about 6,000 when it was listed as endangered in 1987. It continued to decline to 4,000 in 1993 and 3,000 in 2010.

The golden-cheeked warbler declined due to destruction, degradation and fragmentation of mature south Texas woodlands in favor of urban, agricultural and livestock development, as well as because of declining oak populations. Territories on Fort Hood, Camp Bullis and Balcones Canyonlands National Wildlife Refuge decreased from 3,526 in 1994 to 3,099 in 2000, then increased steadily to 11,920 in 2012; survey effort was a factor, but the bird's actual growth is substantial.

The Guam kingfisher, or sihek, declined due to logging and the introduction of invasive ungulates and predatory brown tree snakes. The last wild birds were captured to save the species from extinction in 1984 and 1986. It declined from 3,023 estimated birds in 1981 to 50 in 1985, the year following its listing as endangered. It was extirpated from the wild in 1988. A captive population of 21 birds was created in 1984 and grew to 150 by 2015.
GUAM RAIL (‘KO’KO)

Trend Since Listing: Increased Growth: 650%
Status: Endangered Listed: 1984
Recovery Plan: 1990
Critical Habitat: None

The Guam rail, or ‘ko’ko, is threatened by predation by brown tree snakes, feral cats and other introduced species. The rail declined catastrophically between 1968 and 1983 as brown tree snakes spread across the island. Only 20 wild birds were estimated when the species was listed in 1984. It was extirpated from the wild in 1985. A captive population grew from 21 in 1983 to 170 in 2014, and wild populations created in 1989 and 2010 numbered 150 as of 2014.

HAWAII ‘AKEPA (AKAKANE)

Trend Since Listing: Stable Growth: -14%
Status: Endangered Listed: 1970
Recovery Plan: 2006
Critical Habitat: None

The Hawaii ‘ākepa, or akakane, declined due to the destruction and fragmentation of forests by logging and livestock grazing, as well as the spread of invasive, disease-carrying mosquitoes, whose elevational range has increased with global warming. The subspecies population was estimated at 13,892 in 1978 and remained roughly stable at this level through 2007. In 2008 the estimate stood at 12,000. While one major subpopulation grew during that time, others declined.

HAWAII CREEPER

Trend Since Listing: Stable Growth: 12%
Status: Endangered Listed: 1975
Recovery Plan: 2006
Critical Habitat: None

The Hawaii creeper declined dramatically due to development; grazing; and invasive predators, plants, competitors and diseases. The movement of avian malaria into higher elevations may be the most significant threat in coming decades. Once an abundant species, it had been reduced to about 12,500 birds by 1980 (shortly after it was listed as endangered in 1975). Since then, the creeper population has remained relatively stable, with 14,000 birds estimated in 2008.
HAWAIIAN COMMON GALLINULE (‘ALAE ‘ULA)

**Trend Since Listing:** Increased
**Growth:** 2,692%

**Status:** Endangered  Listed: 1967

**Recovery Plan:** 2011

**Critical Habitat:** None

The Hawaiian common gallinule declined due to the destruction and degradation of its wetland habitat. Though absolute abundance numbers aren't clear, its population growth rate was sharply positive from 1956 through the mid-1980s, then increased more slowly through 2007. An index of the population increased from 13 in 1967 to 363 in 2007.

HAWAIIAN COOT (‘ALAE KE’OKE’O)

**Trend Since Listing:** Increased
**Growth:** 748%

**Status:** Endangered  Listed: 1970

**Recovery Plan:** 2011

**Critical Habitat:** None

The Hawaiian coot was initially threatened by hunting (in the first half of the 20th century), but it more recently it has been threatened primarily by habitat loss. The rangewide winter coot count increased from 208 birds in 1970 to 1,763 in 2007. Although winter counts fluctuate greatly from year to year, on the whole an upward trend is still detectable.

HAWAIIAN CROW (‘ALALĀ)

**Trend Since Listing:** Declined
**Growth:** -100%

**Status:** Endangered  Listed: 1967

**Recovery Plan:** 2009

**Critical Habitat:** None

The Hawaiian crow, or ‘alalā, is the only surviving member of Hawaii’s five endemic crow species. It was extirpated from the wild by habitat destruction, predation by introduced predators, disease, and genetic impoverishment. Listed in 1967, it declined from 100 birds in 1968 to 12 in 1992. After a failed augmentation effort, all wild birds were captured in 2003. Captive birds increased from eight to 114 between 1978 and 2016. Reintroductions are planned for September 2016.
**HAWAIIAN DUCK (KOLOA)**

**Trend Since Listing:** Declined
**Growth:** -32%

**Status:** Endangered  Listed: 1967

**Recovery Plan:** 2011

**Critical Habitat:** None

The Hawaiian duck, or koloa, has been endangered by hunting, nonnative predators, hybridization with domestic ducks, and habitat loss. Estimates on Kauai since the year before the species’ listing in 1967 had declined from 2,942 individuals to 2,000 in 2002. As of 2015, the population was still thought to be around or less than 2,000, although this was not based on new surveys.

**HAWAIIAN GOOSE (NĒNĒ)**

**Trend Since Listing:** Increased
**Growth:** 567%

**Status:** Endangered  Listed: 1967

**Recovery Plan:** 2004

**Critical Habitat:** None

The Hawaiian goose, or nēnē, is endemic to the Hawaiian islands, where it declined from a historic population estimate of 20,000 birds to just 30 by 1918 due to overhunting, habitat loss and introduced predators. It numbered about 450 in 1972, five years after the species was listed as endangered (in 1967). As of 2015 about 3,000 birds were estimated to exist.

**HAWAIIAN HAWK (‘IO)**

**Trend Since Listing:** Increased
**Growth:** 54%

**Status:** Endangered  Listed: 1967

**Delisting:** Proposed 2014

**Recovery Plan:** 1984

**Critical Habitat:** None

The Hawaiian hawk declined due to logging and conversion of forests to farmlands and livestock pastures. Hunting and invasive predators and disease may have also harmed it. When the species was listed as endangered in 1967, about 100 Hawaiian hawks were thought to remain, though this and 1970s numbers are likely underestimates. In 1985 the estimated population was 1,950 hawks; in 2009 that number was 3,000.
**HAWAIIAN PETREL (ʻUAʻU)**

<table>
<thead>
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<th>Trend Since Listing: Stable</th>
<th>Growth: 0%</th>
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<tr>
<td>Recovery Plan: 1983</td>
<td>Critical Habitat: None</td>
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The Hawaiian petrel, or ʻuaʻu, declined due to habitat loss, hunting, predation by invasive species, disease-carried by invasive mosquitoes, disorientation due to light pollution, and collisions with structures. Very rare by 1900, this bird was thought extinct from 1928 to 1948. Since its endangered listing in 1967, its population has grown on protected lands on Maui, Lanai and Kauai. Population estimates were about 4,500 breeding pairs in 1987, 2005 and 2013.

**HAWAIIAN STILT (AEʻO)**

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<th>Trend Since Listing: Increased</th>
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<tr>
<td>Recovery Plan: 2011</td>
<td>Critical Habitat: None</td>
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The Hawaiian stilt is threatened primarily by habitat loss and predation. It was formerly threatened by hunting. Its population had declined to just 200 birds by 1941, but 529 stilts were counted in 1970, when it was listed, and though its numbers vary widely, overall it had increased by winter 2007, when 2,103 birds were counted.

**INYO CALIFORNIA TOWHEE**

<table>
<thead>
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<th>Trend Since Listing: Increased</th>
<th>Growth: 317%</th>
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<tr>
<td>Status: Threatened</td>
<td>Listed: 1987</td>
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<tr>
<td>Recovery Plan: 1998</td>
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The Inyo California towhee occurs in a single, arid mountain range in Southern California. Its habitat has been degraded by cattle, feral horses, burros, off-road vehicles, campers and hikers. It was listed as endangered with critical habitat in 1987. In 1987 there were 175 towhees estimated. The species began increasing due to habitat-protection efforts, and in the mid-1990s it reached its 400-bird delisting goal. In 2011, as many as 729 birds existed; in 2013 the species was proposed for delisting.
KAUAI ‘O’O

**Status:** Endangered  
**Listed:** 1967

**Recovery Plan:** 2006  
**Critical Habitat:** None

The Kauai ‘ō’ō declined due to habitat destruction and degradation and likely avian disease. As its range and population withered and lost resiliency, hurricanes may have delivered the final blow. It was listed as endangered in 1967. In 1973, the population estimate stood at 36. The bird was last heard in 1987, and concerted efforts to detect the species thereafter have failed. The species is most likely extinct.

KIRTLAND’S WARBLER

**Status:** Endangered  
**Listed:** 1967

**Downlisting:** 5YR 2012  
**Recovery Plan:** 1985  
**Critical Habitat:** None

The Kirtland’s warbler population declined due to fire suppression, nest parasitism by brown-headed cowbirds, and loss of forest habitat to development and agriculture. It was listed as endangered in 1967, and by 1971 there were only 201 surviving singing males. In response to habitat protection and restoration, as well as cowbird control, the population grew steadily to 2,365 pairs in 2015.

LARGE KAUAI THRUSH (KĀMA’O)

**Status:** Endangered  
**Listed:** 1970

**Recovery Plan:** 2006  
**Critical Habitat:** None

The large Kauai thrush, or kāma’o, was affected by habitat destruction and degradation via development, grazing and introduced species, among other factors. Avian disease seems to have played a particularly large role in the species' decline. In the 1880s it was the most common bird on Kauai. In 1970 it was listed as endangered, and in 1973, only 337 birds were estimated to exist, with the last confirmed sighting in 1987. The species is very likely extinct.
**LAYSAN DUCK**

*Trend Since Listing:* Increased
*Growth:* 20%

*Status: Endangered* Listed: 1967

Recovery Plan: 2009
Critical Habitat: None

The Laysan duck initially disappeared from most of the Hawaiian Islands due to introduced predators, habitat loss and windblown sand. It is currently threatened by disease, tsunamis, storms, drought and small population size. It was listed as endangered in 1967. The 1979 population was estimated at 489 birds, all on Laysan Island. In 2012 its population estimate was 620, with 339 birds on Laysan Island and 281 on Midway Atoll, where a population was introduced in 2004.

**LAYSAN FINCH**

*Trend Since Listing:* Stable
*Growth:* 16%

*Status: Endangered* Listed: 1967

Recovery Plan: 1984
Critical Habitat: None

The Laysan finch declined precipitously following the introduction of rabbits, which denuded Laysan Island of vegetation. The species increased following rabbit removal, but it remains threatened by invasive species and sea-level rise. In 1923 as few as 100 of the finches existed. The Laysan island population was estimated at around 7,798 birds in 1967 and 9,077 in 2012. While the population fluctuates widely, overall it was stable near carrying capacity between 1966 and 2012.

**LEAST BELL'S VIREO**

*Trend Since Listing:* Increased
*Growth:* 776%

*Status: Endangered* Listed: 1986
Downlisting: 5YR 2006

Recovery Plan: 1998
Critical Habitat: 1994

The least Bell's vireo declined to near-extinction due to habitat loss and brood parasitism by the brown-headed cowbird. Since around the time of its listing and critical habitat designation, there has been an increase in the number of estimated territories, from 291 in 1985 to 2,968 as of 2005.
The interior least tern's main threat at the time of its listing was the destruction of habitat due to channel engineering. The species has proven resilient to changes in habitat and has benefited from management. No range-wide threats persist. Since it was listed as endangered in 1985, its population has increased from an estimated 1,970 birds to 13,855 in 2012. Furthermore, the species is now known to inhabit a larger range than originally thought.

The light-footed clapper rail declined due to loss of salt marshes and wetlands. It remains threatened by predation, small population size, climate change, severe weather events, poor habitat quality and automobile strikes. The U.S population has fluctuated since listing in 1970, but it shows a clearly increasing trend, going from 250 pairs of birds in 1976 to 528 pairs in 2014.

The marbled murrelet population in Washington, Oregon and California declined due to logging of its preferred old-growth forest habitat. It likely declined in the 1990s, but hard data is lacking. The species also declined between 2001 (22,424 birds) and 2010 (17,087); it then increased to 20,290 by 2013. Between 2001 and 2013 the trend was slightly negative but effectively stable overall.
**MARIANA CROW (AGA)**

*Trend Since Listing: Declined*  
*Growth: -93%*  
*Status: Endangered*  
*Listed: 1984*  
*Recovery Plan: 2005*  
*Critical Habitat: 1994*

The Mariana crow, or aga, is endemic to Guam and Rota. Its population has declined due to habitat destruction by agriculture, urban and military development, hunting, and predation by invasive brown tree snakes and feral cats. It was common on Guam through the 1940s, declined substantially by the 1960s, and was extirpated in 2013. On Rota, it declined from 1,491 birds in 1982 to 101 in 2014. Rangewide it declined from 1,666 birds in 1983 to 101 in 2014.

**MARIANA MALLARD**

*Trend Since Listing: Declined*  
*Growth: -100%*  
*Status: Delisted*  
*Listed: 1977*  
*Delisting: 2004*  
*Recovery Plan: None*  
*Critical Habitat: None*

The Mariana mallard was likely never common due to the limited extent of wetlands on the Mariana Islands. It was driven extinct by the draining and filling of wetlands around WWII. Pollution, hunting, and egg/specimen collection were also factors. The bird was extirpated from Guam (1967) and Tinian (1974) prior to being listed as endangered in 1977. The last three birds were captured in a 1979 emergency rescue. A male was released and never seen again. The others died in captivity in 1981.

**MARIANA NIGHTINGALE REED-WARBLER (GA KALISO, GAGA KARISU)**

*Trend Since Listing: Declined*  
*Growth: -42%*  
*Status: Endangered*  
*Listed: 1970*  
*Recovery Plan: 1998*  
*Critical Habitat: None*

The Mariana nightingale reed-warbler subspecies, locally named ga kaliso or gaga karisu, has been threatened mainly due to habitat loss. Causes include fire and wetland conversion. The bird was extirpated on Guam in 1969, the year before it was listed as endangered. Combined numbers from Alamagan and Saipan declined from 8,008 in 1986 to 4,634 in 2009.
The Mariana swiftlet, or yayaguak, is not well studied, and the causes of its decline are not well known, but they appear to include nest-site disturbance, habitat loss and brown tree snake predation. While not uniform across the islands inhabited by the subspecies, overall the rangewide population had increased from about 4,180 birds in 1984 to about 6,750 as of 2015.

The Mariana common moorhen, or pulattat, declined on the four small Mariana islands to which it is endemic due to the draining, filling, degradation and pollution of wetlands, hunting, and predation by invasive species. Some island populations increased and other decreased since it was listed as endangered in 1984, but overall it was stable with the population estimated at 312 in 1984, 350 in 1990, 287 in 2001, and 285 in 2014.

The Maui ‘ākepa, or akepeuie, declined to possible extinction due to habitat loss and degradation, invasive predators, and the spread of disease. If it still exists, it is likely severely genetically impoverished. After being listed as endangered in 1970, the Maui ‘ākepa was seldom seen. In 1980 its population was estimated to number 230 birds with 8 sightings having occurred that year. The last confirmed detection was in 1988.
MAUI PARROTBILL (KIWIKIU)

**Trend Since Listing:** Stable  
**Growth:** 0%  
**Status:** Endangered  
**Listed:** 1967

**Recovery Plan:** 2006  
**Critical Habitat:** 2016

The Maui parrotbill, or kiwikiu, has been threatened, in general, by habitat loss and degradation, predation and invasive diseases. The Maui parrotbill was thought extinct, then was rediscovered in 1950. Between 1980 and 2015, the estimated population went from 502 to 500. The species’ total population is thought to have been stable during that time.

MEXICAN SPOTTED OWL

**Trend Since Listing:** Unknown  
**Growth:** ?  
**Status:** Threatened  
**Listed:** 1993

**Recovery Plan:** 2012  
**Critical Habitat:** 1995

The Mexican spotted owl is threatened by habitat loss and degradation by logging, large-scale stand-replacing wildfire and exurban development. It was listed as threatened under the Endangered Species Act in 1993. The number of known owl territories increased from 758 in 1993 to 1,301 as of 2008, but much or most of that growth was due to increased survey effort. Overall, the trend-since-listing is unknown.

MICRONESIAN MEGAPODE

**Trend Since Listing:** Increased 323%  
**Growth:**  
**Status:** Endangered  
**Listed:** 1970

**Recovery Plan:** 1998  
**Critical Habitat:** None

The Micronesian megapode has been threatened by habitat loss, fragmentation, and degradation by development and navy training exercises, and by hunting, and the effects of feral, dogs, cats and pigs. While megapode populations are increasing on certain islands, they are stable or decreasing on others. Overall the species increased from 2,587 birds in 1986 to 10,935 in 2010, although some of the growth was due to increased survey effort.
The Mississippi sandhill crane is threatened by habitat loss, predation, isolation, harassment, contaminants and hurricanes. Less than 2 percent of the species' wet pine savanna habitat remains. The release of captive-bred cranes began in 1981, and the wild population increased from 40 birds in 1975 to a peak of 135 in 1993. The population declined and remained stable at about 110 birds between 2010 and 2013, then increased to 126 in 2015.

The Molokai thrush, or oloma’o, declined to possible extinction due to habitat destruction by agriculture, development, grazing, and likely also mosquito-borne diseases exacerbated by climate change, invasive species and genetic diversity loss. Ubiquitous on Molokai in the early 1900s, the bird was seen only four times since 1963 and three times since being listed as endangered in 1970. No more than three have been seen in any year since 1963. The last confirmed sighting was in 1980.

The Mona yellow-shouldered blackbird is threatened by habitat destruction, invasive predators (such as rats), and avian pox. Its isolation on the island of Mona, however, has spared it from more damaging invasives found on the main island of Puerto Rico. It was listed as endangered in 1976, increasing from a 1975 post-breeding roost count of 200 birds to 372 birds in 2010.
**NEWELL’S SHEARWATER (‘A’O)**

*Trend Since Listing: Declined*

*Growth: -67%*

*Status: Threatened*  
Listed: 1975

*Uplisting: 5YR 2011*

*Recovery Plan: 1983*

*Critical Habitat: None*

The Newell's shearwater, or 'a'o, declined due to predation by invasive rats, mongooses, cats and barn owls, collisions with power lines, habitat loss, and disorientation and grounding caused by its attraction to artificial lighting. It was listed in 1975. The bulk of its population occurs on Kauai, where 63,000 were estimated in surveys between 1980 and 1994. Due in part to Hurricane Iniki in 1992, by 2008 the Kauai population had declined to 21,000.

**NIHOA FINCH**

*Trend Since Listing: Stable*

*Growth: -5%*

*Status: Endangered*  
Listed: 1967

*Recovery Plan: 1984*

*Critical Habitat: None*

The Nihoa finch is especially vulnerable due to its small population size and small, isolated range. Specific threats include natural disasters, the potential for nonnative species introductions, demographic stochasticity and climate change. At the time of its listing in 1967, 4,689 individuals were estimated to exist. Overall their population has remained fairly stable since then, with the 2012 estimate at 4,475 finches.

**NIHOA MILLERBIRD**

*Trend Since Listing: Stable*

*Growth: -15%*

*Status: Endangered*  
Listed: 1967

*Recovery Plan: 1984*

*Critical Habitat: None*

The Nihoa millerbird inhabits two small islands in the northwestern Hawaiian archipelago. Its main threat comes from the small size of its habitat, which leaves it particularly susceptible to invasive species, disease and storm events. Between 1967 and 2012, its rangewide population declined from 625 to 533. Its numbers fluctuate widely, making the population trend best described as stable. The 2011 establishment of a second population lends security to the species’ survival.
The northern Aplomado falcon declined due to brush encroachment of savanna because of fire suppression and livestock grazing; agricultural conversion; stream channelization; pesticide exposure and predation by brush-loving species. It was extirpated from the United States by 1960, listed as endangered in 1986, and reintroduced to the coastal plain of South Texas in 1993. The breeding population increased from one pair in 1995 to 44 in 2005, then declined to 28 in 2012 and 2013.

The northern spotted owl declined due to destruction and fragmentation of nesting, roosting and foraging habitat by wildfire, logging, and other natural disturbances (such as windstorms), as well as competition with encroaching barred owls. Between 1990 and 2013, 11 researched populations of northern spotted owls declined by 3.8% annually. By 2011 the total population at their sites was 37% of what it had been in 1985.

The Oahu ‘elepaio is threatened by nest predation from introduced rats and by avian disease. Population declines since the 1940s have been dramatic and are continuing. Upon listing as an endangered species in 2000, the population was estimated at 1,974 birds. By 2012 that number had fallen to 1,261.
**OAHU CREEPER (OAHU ‘ALAUAHIO)**

- **Trend Since Listing:** Declined
- **Growth:** -100%
- **Status:** Endangered
- **Listed:** 1970
- **Recovery Plan:** 2006
- **Critical Habitat:** None

The Oahu creeper, or Oahu ‘alauahio, declined due to the destruction of a large portion of the forests on the island of Oahu. That which remains has been compromised as habitat by invasive species and diseases. The creeper was still considered plentiful in the late 1800s. By the 1930s it was rare. The species was listed as endangered in 1970 and only seen in one year after: 3 birds in 1978.

**PALAU FANTAIL**

- **Trend Since Listing:** Unknown
- **Status:** Delisted
- **Listed:** 1970
- **Delisting:** 1985
- **Recovery Plan:** None
- **Critical Habitat:** None

The Palau fantail was driven to near extinction by World War II military operations which destroyed or degraded most of its habitat. It was listed as an endangered species in 1970, rebounded and was delisted in 1985. Its trend-since-listing is unknown as there are no population estimates in that time period. In 1991, it was estimated at 27,154 birds, in 2015 was abundant or common on most of Palau's islands, and in 2016 was considered to be increasing.

**PALAU GROUND DOVE**

- **Trend Since Listing:** Stable
- **Growth:** 0%
- **Status:** Delisted
- **Listed:** 1970
- **Delisting:** 1985
- **Recovery Plan:** None
- **Critical Habitat:** None

The Palau ground dove was nearly driven extinct by habitat-destroying military operations during World War II. It is currently at risk from the potential introduction of invasive predators, including rats and brown tree snakes. Its population was unquantified but very small in 1945. It was listed as endangered in 1970 and remained stable at about 500 birds between 1978 and 1985, when it was delisted due to recovery. A 2012 population estimate of at least 600 is uncertain.
**PALAU OWL**

**Trend Since Listing:** Unknown  
**Growth:** ?  
**Status:** Delisted  
**Listed:** 1970  
**Delisting:** 1985  
**Recovery Plan:** None  
**Critical Habitat:** None

The Palau owl is endemic to the islands of Palau. It was nearly eliminated by forest destruction during World War II and the introduction of invasive rhinoceros beetles, supposedly capable of eviscerating the owl from the inside upon being swallowed. The species was at very low numbers in 1945 and into the late 1960s. It was listed in 1970 and had increased to 12,000 individuals by 1978 due to forest recovery and beetle control. The owl was delisted in 1985.

**PALILA**

**Trend Since Listing:** Increased  
**Growth:** 28%  
**Status:** Endangered  
**Listed:** 1967  
**Recovery Plan:** 2006  
**Critical Habitat:** 1977

The palila historically declined due to, and is still threatened by disease, predation by invasive cats and rats, grazing by invasive sheep and pigs, fire, drought, invasive insects and plants, and climate change. Its population grew from 1,614 birds in 1975, to a peak of 6,067 in 2003, then declined to just 2,070 in 2014. While the overall 1975-2014 trend is positive, steep declines in the past decade will reverse this soon if not halted.

**PIPING PLOVER (ATLANTIC DPS)**

**Trend Since Listing:** Increased  
**Growth:** 205%  
**Status:** Threatened  
**Listed:** 1985  
**Recovery Plan:** 1999  
**Critical Habitat:** 2001

The Atlantic piping plover initially declined due to hunting and the millinery trade. With these eliminated it increased in the first half of the 20th century, but began declining after 1950 due to development, beach crowding and predation. It was listed as threatened in 1985. Intensive habitat protection and predator control grew its U.S. population from 550 pairs in 1986 to 1,679 in 2015. The 1,600 pair recovery goal was met in 2007 and 2012 through 2015 (although 2014 data is lacking).
**PIPING PLOVER (GREAT LAKES DPS)**

*Trend Since Listing:* Increased

*Growth:* **295%**

*Status:* Endangered  Listed: 1985

*Recovery Plan:* 2003

*Critical Habitat:* 2001

The Great Lakes piping plover initially declined due to hunting, egg collecting and the millinery trade. More recent declines are the result of development, predation and human recreation in plover nesting habitat. When the plover was listed as endangered in 1985, only 19 pairs remained in the Great Lakes region. The species continued to decline to 12 pairs in 1990 before increasing steadily to 75 pairs in 2015.

**PIPING PLOVER (NORTHERN GREAT PLAINS DPS)**

*Trend Since Listing:* Increased

*Growth:* **180%**

*Status:* Threatened  Listed: 1985

*Recovery Plan:* 2016

*Critical Habitat:* 2002

The Northern Great Plains piping plover was listed as endangered in 1985 due to threats from habitat loss, predation and disturbance. The plover's numbers in the Northern Great Plains region increased from about 525 breeding pairs in 1986 (the year after it was listed) to 1,468 breeding pairs in 2008.

**PO’OUŁI**

*Trend Since Listing:* Declined

*Growth:* **-100%**

*Status:* Endangered  Listed: 1975

*Recovery Plan:* 2006

*Critical Habitat:* None

The po’ouli’s range had been greatly reduced by the time it was discovered in 1973. While its threats aren’t well known, they have likely been similar to those faced by other Hawaiian forest birds, including feral pig damage and mosquito-borne disease. The po’ouli was listed in 1975. After that time, no more than six birds were known in any given year. In 2004 the last wild sighting occurred and the last known individual died in captivity.
The Puerto Rican broad-winged hawk declined due to habitat loss and degradation, human disturbance, competition with red-tailed hawks, and genetic problems due to its very small population size. It was listed as an endangered species in 1994 with an estimated 124 birds inhabiting three forests. The population has remained stable since then, with an estimated 125 hawks present in 2010.

The Puerto Rican nightjar declined due to habitat loss from agricultural, residential and industrial development, livestock grazing, wildfire, and predation by invasive mongooses and feral cats. A main population's density was 0.11 birds per hectare (483 birds) in 1971 and 0.14 (615) in 1992. While a 2008 estimate was incomparable, it was much higher, and by that time the species' known range had increased and forest conditions had improved.

The Puerto Rican parrot declined to near-extinction due to deforestation, hunting and hurricane damage. When it was listed as an endangered species in 1967, there were just 24 birds in the wild. Due to habitat protection, captive breeding and predator control, by 2014 the species had increased to 109 in the wild and 409 in captivity.
**PUERTO RICAN PLAIN PIGEON**

*Trend Since Listing:* Increased

*Growth:* 363%

*Status: Endangered*  
*Listed: 1970*

*Recovery Plan: 1982*

*Critical Habitat: None*

The Puerto Rican plain pigeon declined to near-extinction due to hunting and the clearing of forests for agriculture and development. It remains highly threatened by habitat loss for development, hurricane damage to forests, and low bird density. Overall its total population has fluctuated, but it increased from a few hundred survivors observed at the time of the species’ listing in 1970 and an estimated 2,055 birds in existence in 1986 to an estimated population of 9,509 birds in 2010.

**PUERTO RICAN SHARP-SHINNED HAWK**

*Trend Since Listing:* Declined

*Growth:* -68%

*Status: Endangered*  
*Listed: 1994*

*Recovery Plan: 1997*

*Critical Habitat: None*

The Puerto Rican sharp-shinned hawk has been threatened primarily by habitat degradation and loss. It is also affected by warble-fly parasitism, road construction, human disturbance, and its low numbers and limited range. This subspecies was listed as endangered in 1994. It declined from an estimated 150 in 1992 to 49 in 2015. In 2015 it was called a “ghost bird,” and people feared it would be extirpated from its former stronghold, Maricao Forest.

**PUERTO RICAN YELLOW-SHOULDERED BLACKBIRD (LA MARIQUITA)**

*Trend Since Listing:* Increased

*Growth:* 176%

*Status: Endangered*  
*Listed: 1976*

*Recovery Plan: 1996*

*Critical Habitat: 1977*

The Puerto Rico yellow-shouldered blackbird declined dramatically due to cowbird parasitism, predation by introduced species such as black rats, and habitat loss due to development. The bird was listed as endangered in 1976 and the post-breeding roost count of its population on the island of its name was of 272 birds in 1982. The population grew to 750 post-breeding birds counted in 2012.
**RED-COCKADED WOODPECKER**

<table>
<thead>
<tr>
<th>Trend Since Listing</th>
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<tbody>
<tr>
<td>Growth</td>
<td>110%</td>
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<table>
<thead>
<tr>
<th>Status</th>
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<tbody>
<tr>
<td>Listed</td>
<td>1970</td>
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</table>

| Recovery Plan       | 2003       |
| Critical Habitat    | None       |

The red-cockaded woodpecker population declined precipitously due to the significant rangewide loss of mature, longleaf pine forest, largely due to logging and alteration of the local fire regime. Its populations have stabilized, and many have increased, since the late 1990s. In 1970 there were 3,000 active clusters in the designated recovery populations. Numbers had increased to 6,303 by 2014.

**ROSEATE TERN (CARIBBEAN DPS)**

<table>
<thead>
<tr>
<th>Trend Since Listing</th>
<th>Stable</th>
</tr>
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<tbody>
<tr>
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<thead>
<tr>
<th>Status</th>
<th>Threatened</th>
</tr>
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<tbody>
<tr>
<td>Listed</td>
<td>1987</td>
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| Recovery Plan       | 1999       |
| Critical Habitat    | None       |

The Caribbean distinct population segment of the roseate tern declined due to predation by invasive species, collection by humans, nest-site disturbance, habitat lost to development, disruption of vegetation succession processes, and storm-driven erosion. Since listing, the number of Florida and Culebra nests declined from 300 to 100 each. Southwestern Puerto Rico grew from 474 to 934. The Virgin Islands fluctuated but was stable overall at about 1,200. Rangewide nesting was stable at about 2,000.

**ROSEATE TERN (NORTHEASTERN DPS)**

<table>
<thead>
<tr>
<th>Trend Since Listing</th>
<th>Increased</th>
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</thead>
<tbody>
<tr>
<td>Growth</td>
<td>30%</td>
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<table>
<thead>
<tr>
<th>Status</th>
<th>Endangered</th>
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</thead>
<tbody>
<tr>
<td>Listed</td>
<td>1987</td>
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</tbody>
</table>

| Recovery Plan       | 1998       |
| Critical Habitat    | None       |

The Northeast population of the roseate tern initially declined due to the millinery trade, then later due to loss of habitat to coastal development. It is now threatened by development, erosion, climate change, predation and potentially wind turbines. Since being listed in 1987, the U.S. population of nesting roseate terns has fluctuated but increased overall. There were 2,995 pairs in 1988, the population peaked at 4,310 pairs in 2000, and then it fell through 2008. It stood at 3,901 in 2015.
**ROTA BRIDLED WHITE-EYE (NOSA LUTA)**

**Trend Since Listing:** Increased  
**Growth:** 88%  
**Status:** Endangered  
**Listed:** 2004

- **Recovery Plan:** 2007  
- **Critical Habitat:** 2006

The Rota bridled white-eye is endemic to the island of Rota, where it has declined significantly in range extent and population size due to predation from introduced species and other factors not yet known. Formerly common, the bird declined to a population of 14,963 in 1982 and a low of 2,015 in 1995. It was listed as endangered in 2004 and its population increased from 6,591 in 2003 to 9,730 in 2006, then to 14,384 in 2012.

**SAN CLEMENTE BELL'S SPARROW**

**Trend Since Listing:** Increased  
**Growth:** 1,645%  
**Status:** Threatened  
**Listed:** 1977

- **Recovery Plan:** 1984  
- **Critical Habitat:** None

The San Clemente Bell’s sparrow declined due to overgrazing by introduced sheep, cattle and pigs. It recovered greatly following their removal but remains threatened by disturbance, predation, fire and climate change. Its population grew from 93 birds in 1976 (the year before it was listed as an endangered species) to 1,623 in 2012. New survey methods and increased survey areas resulted in estimates of 4,533, 6,386 and 4,381 birds in 2013, 2014 and 2015 respectively.

**SAN CLEMENTE LOGGERHEAD SHRIKE**

**Trend Since Listing:** Increased  
**Growth:** 224%  
**Status:** Endangered  
**Listed:** 1977

- **Recovery Plan:** 1984  
- **Critical Habitat:** None

The San Clemente loggerhead shrike’s habitat was severely degraded by sheep, pigs, deer and goats beginning in the late 1880s. Nonnative grazers have been eliminated, but nonnative predators remain a threat. The bird was listed as endangered in 1977. About 50 shrikes remained in 1975, and only 14 were left in 1998. A captive-breeding and reintroduction program was initiated in 1999, causing the population to steadily increase to a minimum of 185 breeding birds in 2009. In 2013 there were at least 136.
The short-tailed albatross was decimated by commercial collection during the 1940s. More recent threats include volcanic activity, landslides, typhoons, climate change, longline fishing and oceanic plastic pollution. The seabird was rediscovered in 1950s, with 10 breeding pairs. The species was listed in 1970 and estimated at 64 pairs in 1973 and 882 in 2011. The first chick hatched outside of Japan was on Midway Atoll in 2011, where breeding has since continued.

The small Kauai thrush, or puaiohi, is threatened by habitat loss and modification, avian disease, invasive plants, and competition and predation by introduced animals. In 1971, the species estimated to number 176 birds. In 1999, 2006 and 2010, the population was estimated to be 250, 400 and 500 birds. While some of this increase is due to improved survey methods, the species is known to have increased.

The southwestern willow flycatcher declined due to habitat modification and destruction such as stream channel modification, floods, drought and climate change, and parasitism by brown-headed cowbirds. Due to habitat restoration and acquisition, cattle and cowbird reduction and improved reservoir management, known territories increased from 549 to 986 to 1,299 in 1996, 2001 and 2007. The largest increases were in the Gila and Rio Grande river basins.
The spectacled eider is threatened by ingestion of lead shot and environmental contaminants, oil and gas development, increased predation and possibly hunting. A combined index of the U.S. population indicates that Alaska's two primary populations were relatively stable between the species' 1993 listing (12,082) and 2012 (12,964).

The Steller’s eider's two Alaska breeding populations declined for reasons that are not entirely known, but potential threats include increased predation, poaching, poisoning by ingested lead shot, and changes in ocean conditions and climate. Breeding bird index counts fluctuated greatly between 1997, when the eider was listed under the Endangered Species Act, and 2012. While the 2012 index (358) is much larger than the 1997 (220), the overall population trend is stable.

The Tinian monarch, or Chickurikan Tinian, reached critically low levels due to the removal of native forests for sugarcane production prior to World War II and military activities during the war. It is currently threatened by military expansion. The population size in 1970 is unknown. It was 95,916 in 1982 and 105,352 in 1996. The monarch was delisted in 2004, declined thereafter, then increased to 90,634 in 2013.
WESTERN SNOWY PLOVER (PACIFIC DPS)

Trend Since Listing: Increased Growth: 96%
Status: Threatened Listed: 1993
Recovery Plan: 2007
Critical Habitat: 1999

The snowy plover declined on the Pacific Coast due to habitat loss, disturbance of nest sites, and encroachment of European beach grass. It remains threatened by predation, disturbance and climate change. When listed as endangered in 1993, its U.S. population was estimated at fewer than 1,500 adults. Protection efforts caused the population to increase to 2,938 estimated adults in 2015.

WHOOPING CRANE

Trend Since Listing: Increased Growth: 923%
Status: Endangered Listed: 1967
Recovery Plan: 2007
Critical Habitat: 1978

The whooping crane declined precipitously in the late 1800s and early 1900s due to hunting and habitat loss. It remains threatened by habitat degradation, collisions with power lines, and oil and gas development. When listed as endangered in 1967, the whooping crane consisted of 43 wild and 7 captive birds. Thanks to extensive conservation efforts, the species had grown to 440 wild and 161 captive birds by 2014.

WOOD STORK (U.S. DPS)

Trend Since Listing: Increased Growth: 61%
Status: Threatened Listed: 1984
Downlisting: 2014
Recovery Plan: 1999
Critical Habitat: None

The U.S. distinct population segment of the wood stork declined due to loss of wetland breeding habitat caused by the creation and management of levees, canals and floodgates. The number of wood stork nests was estimated at 6,245 in 1984 when the species was listed as endangered. In 2014 the species was reclassified as threatened. Approximately 10,058 nests existed in 2015.
The Yuma clapper rail is the only clapper rail to inhabit freshwater. Its wetland habitat on the Lower Colorado River in Arizona and Mexico is threatened by pollution, urbanization, damming, diversion and desiccation. Listed as endangered in the United States in 1967, the rail's U.S. population was estimated at 698 birds in 1973. Despite fluctuations, its population has since been stable overall. In 2008, the U.S. population estimate was 641.
GROUP 2

23 SPECIES WITHOUT ENDANGERED SPECIES ACT POPULATION TRENDS
**BACHMAN’S WARBLER**

*Trend Since Listing:* Extinct/extirpated before listing

*Growth:* n/a

*Status:* Endangered

*Listed:* 1967

*Recovery Plan:* 1999

*Critical Habitat:* None

Bachman’s warbler was described by James Audubon in 1833. It was driven extinct by intensive logging of its breeding habitat in the United States beginning in the early 1900s. It was considered common until about 1910, when intensive logging began, and it was rare by the 1930s. Its last confirmed sighting was in 1962 in the I'on Swamp. There was an unconfirmed sighting of the bird in its Cuban wintering grounds in 1984.

**ESKIMO CURLEW**

*Trend Since Listing:* Extinct/extirpated before listing

*Growth:* n/a

*Status:* Endangered

*Listed:* 1967

*Recovery Plan:* None

*Critical Habitat:* None

The Eskimo curlew faced extensive habitat loss due to agricultural land conversion and fire suppression. Extreme hunting pressure, especially between 1860 and 1890, led to its apparent extinction. Believed to once have numbered more than 1 million birds rangewide, the species was thought to be extinct between 1905 and 1945, but the actual last documented sighting occurred in 1963. Sporadic, disputed sightings continue to occur.

**GUAM BRIDLED WHITE-EYE (NOSSA)**

*Trend Since Listing:* Extinct/extirpated before listing

*Growth:* n/a

*Status:* Endangered

*Listed:* 1984

*Delisting:* 5YR 2009

*Recovery Plan:* 1990

*Critical Habitat:* 1994

The Guam bridled white-eye, or nosa, was driven extinct by the brown tree snake, which invaded the island and vastly proliferated, driving all but two of Guam's native birds extinct by preying upon eggs, nestlings and adults. Formerly the most common bird on its island, it was reduced to an estimated 2,220 individuals in 1981 and last seen in 1983. It was listed as endangered in 1984 in the hope that it would be rediscovered, but it hasn't been seen despite subsequent surveys.
GUAM BROADBILL (CHUGUANGGUANG)

The Guam broadbill, or chuguangguang, was driven extinct by disease, pesticides and predation by invasive species, the most important of which was the ubiquitous brown tree snake. Its range declined from 310 square miles in 1900, to 193 in 1950, and 0.6 in 1983. Its population declined from 460 estimated birds in 1981, to less than 100 in 1983. Only two birds were seen in 1984 and none after. It was listed as endangered in 1984.

IVORY-BILLED WOODPECKER

The ivory-billed woodpecker was driven extinct by logging, and to much lesser extent, turn-of-the-century collection for scientific and other purposes. The U.S. subspecies was last seen in Louisiana in 1944, despite intensive survey efforts that have taken place since. Sightings continue to be reported in both countries, but none have been confirmed.

KAUAI ‘AKIALOA

The Kauai ‘akialoa was not well known, but it presumably faced the same threats as many other Hawaiian forest birds, including mosquito-borne diseases, habitat loss and degradation, and predation by introduced species. It was last seen in 1965, two years before it was listed as an endangered species.
**KAUAI NUKUPU’U**

<table>
<thead>
<tr>
<th>Trend Since Listing:</th>
<th>Extinct/extirpated before listing</th>
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<tbody>
<tr>
<td>Growth:</td>
<td>n/a</td>
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<tr>
<td>Status:</td>
<td>Endangered</td>
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<td>Listed:</td>
<td>1967</td>
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</table>

Recovery Plan: 2006

Critical Habitat: None

The Kauai nukupu’u rapidly declined rapidly to possible extinction in the nineteenth century due to habitat loss, disease and invasive species. There have been reported sightings in only nine years between 1900 and 2010, and in six years since its Endangered Species Act listing in 1967. Post-1967 reports all reported three or fewer birds in any year. The last confirmed sighting was in 1899.

**MASKED BOBWHITE**

<table>
<thead>
<tr>
<th>Trend Since Listing:</th>
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<tr>
<td>Growth:</td>
<td>n/a</td>
</tr>
<tr>
<td>Status:</td>
<td>Endangered</td>
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<td>Listed:</td>
<td>1967</td>
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</table>

Recovery Plan: 1995

Critical Habitat: None

The masked bobwhite inhabited the subtropical grasslands of southern Arizona and Sonora, Mexico. Severe overgrazing transformed these landscapes into thornscrub devoid of dense grass, which does not support the bobwhite. Around 1900 it was numerous, but by 1950 it was extirpated from the United States. Repeated introduction effort have failed. A large captive bred population is available to support future reintroduction efforts.

**MAUI NUKUPUʻU**

<table>
<thead>
<tr>
<th>Trend Since Listing:</th>
<th>Extinct/extirpated before listing</th>
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<tbody>
<tr>
<td>Growth:</td>
<td>n/a</td>
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<tr>
<td>Status:</td>
<td>Endangered</td>
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<td>Listed:</td>
<td>1970</td>
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</table>

Recovery Plan: 2006

Critical Habitat: None

The Maui nukupuʻu was driven extinct by habitat destruction, invasive species, and disease. Its last confirmed sighting was in 1901. It was listed as an endangered species in 1970 in the hopes that it would be rediscovered. A handful of unconfirmed sightings have been reported since then, but none confirmed.
MOLOKAI CREEPER (KĀKAWAHIE)

Trend Since Listing: Extinct/extirpated before listing
Growth: n/a
Status: Endangered  Listed: 1970
Recovery Plan: 2006
Critical Habitat: None

The Molokai creeper disappeared before it could be studied. Its extinction was likely caused by disease, habitat loss and degradation, and the effects of invasive species. Two to three birds were seen each year in 1961, 1962 and 1963 but, as of 2015, the species had not been sighted since 1963 despite repeated, targeted surveys. It was listed as endangered in 1970, seven years after its last observation.

PAGAN NIGHTINGALE REED-WARBLER (GAGA KARISU)

Trend Since Listing: Extinct/extirpated before listing
Growth: n/a
Status: Endangered  Listed: 1970
Recovery Plan: 1998
Critical Habitat: None

The Pagan nightingale reed-warbler, or gaga karisu, was threatened mainly by the clearing and subsequent grazing of much of its habitat. As of the 1960s, the bird has not been seen despite multiple survey efforts made in hopes of detecting the subspecies.

SANTA BARBARA SONG SPARROW

Trend Since Listing: Extinct/extirpated before listing
Growth: n/a
Status: Delisted  Listed: 1973
Delisting: 1983
Recovery Plan: None
Critical Habitat: None

The Santa Barbara song sparrow was driven to extinction by ranching, farming, the effects of non-native species, and a catastrophic fire that followed after the practice of fire suppression. Despite significant threats, the sparrow’s population remained reasonably healthy until a fire wiped the bird out in 1959, consuming most of its habitat. The sparrow was delisted in 1983.
**THICK-BILLED PARROT**

*Trend Since Listing:* Extinct/extirpated before listing  
*Growth:* n/a  
*Status:* Endangered  
Listed: 1970  
Recovery Plan: 2013  
Critical Habitat: None

The thick-billed parrot was driven to very low population levels in the U.S. by hunting and logging in the 1800s and 1900s. In Mexico, the species is threatened by deforestation, grazing’s effect on forest fire regimes, and the illegal bird trade. Historical accounts of the thick-billed parrot’s abundance do not exist, but natural occurrences of the bird in the United States were last recorded in 1938 and possibly 1964. In 2012, about 2,000 parrots, all in Mexico, were thought to exist.

**WHITE-NECKED CROW**

*Trend Since Listing:* Extinct/extirpated before listing  
*Growth:* n/a  
*Status:* Endangered  
Listed: 1991  
Recovery Plan: None  
Critical Habitat: None

The white-necked crow was extirpated from Puerto Rico by deforestation and hunting. As of 2015, the bird remained on Hispaniola where it faced the same threats. While the last sighting of the crow on Puerto Rico occurred in 1963, the species was listed as endangered in the United States in 1991.

**GUNNISON SAGE GROUSE**

*Trend Since Listing:* Listed <10 Years  
*Growth:* n/a  
*Status:* Threatened  
Listed: 2014  
Recovery Plan: None  
Critical Habitat: 2014

The Gunnison sage grouse declined due to habitat degradation and destruction, drought, climate change, disease and small population size. Standardized monitoring of the grouse began in 1996, at which time there were estimated to be 4,038 of the birds. At the time of the species listing as threatened in 2014, 4,705 were estimated.
KAUAI ‘ĀKEPA (‘AKEKE’E)

**Trend Since Listing:** Listed <10 Years

**Growth:** n/a

**Status:** Endangered

Listed: 2010

Recovery Plan: 2010

Critical Habitat: 2010

The Kauai ‘ākepa, or ‘akeke’e, is primarily threatened by introduced mosquito-borne diseases and habitat loss. Predation by rats is also a potential threat. At its endangered listing in 2010, the most recent reliable estimate had been of 3,111 individuals in 2008. In 2007 the estimate stood at 3,536 birds, but by 2012 only 945 remained.

KAUAI CREEPER (‘AKIKIKI)

**Trend Since Listing:** Listed <10 Years

**Growth:** n/a

**Status:** Endangered

Listed: 2010

Recovery Plan: 2010

Critical Habitat: 2010

The Kauai creeper, or ‘akikiki, is primarily threatened by introduced mosquito-borne diseases, habitat loss and degradation, and, potentially, predation by introduced species. The ‘akikiki is estimated to have declined from 1,312 individuals in 2007 to 468 in 2012. It was listed as endangered in 2010.

RUFAR RED KNOT

**Trend Since Listing:** Listed <10 Years

**Growth:** n/a

**Status:** Threatened

Listed: 2014

Recovery Plan: None

Critical Habitat: None

The rufa red knot is threatened by climate change, shoreline development, and interferences with prey availability. Data on the bird are sparse and incomplete. While the subspecies’ precise numbers through time are uncertain, decreases in the late 1900s and 2000s were apparent. The knot was listed as threatened in 2014.
**STREAKED HORNED LARK**

**Trend Since Listing:** Listed <10 Years  
**Growth:** n/a  
**Status:** Threatened  
**Listed:** 2013  
**Recovery Plan:** None  
**Critical Habitat:** 2013

The streaked horned lark has been threatened primarily by a drastic contraction in its range. Furthermore, remaining habitat is often ephemeral and prone to human disturbance. Data on its population trends is lacking, but significant rangewide decreases occurred in the late 1900s and 2000s. The only available population estimate is of 1,390 in 2011. The subspecies was listed as threatened in 2013.

**YELLOW-BILLED CUCKOO (WESTERN DPS)**

**Trend Since Listing:** Listed <10 Years  
**Growth:** n/a  
**Status:** Threatened  
**Listed:** 2014  
**Recovery Plan:** None  
**Critical Habitat:** None

The yellow-billed cuckoo is threatened by the destruction and degradation of its native riparian woodland habitat due to invasive species, grazing and water management practices. Its range contracted dramatically during the 1900s. As of 2013, there were estimated to be 423 breeding pairs (1,705 individuals) remaining in the United States. It was listed as a threatened species in 2014.

**LESSER PRAIRIE CHICKEN**

**Trend Since Listing:** Delisted, Court Order  
**Growth:** n/a  
**Status:** Delisted  
**Listed:** 2014  
**Delisting:** 2016  
**Recovery Plan:** None  
**Critical Habitat:** None

The lesser prairie chicken declined due to habitat destruction, degradation and fragmentation by energy, agriculture and other development. It declined significantly throughout the 1900s. Between 1970 and 2015, the estimated population fell from 300,000 to 29,000. It was listed as an endangered species in 2014.
**MEXICAN DUCK (U.S. DPS)**

*Trend Since Listing:* Delisted, Taxonomic Change  
*Growth:* n/a  
*Status:* Delisted  
Listed: 1967  
Delisting: 1978  
Recovery Plan: None  
Critical Habitat: None

The U.S. population of the Mexican duck was thought to be at risk due to the drainage of its marsh habitat and hybridization with mallards. The Mexican duck was delisted after it became clear that genetically pure Mexican ducks are very unlikely in the United States. Crosses between Mexican ducks and mallards in the U.S. essentially constitute an unlistable phenotype of the mallard.

**CACTUS FERRUGINOUS PYGMY OWL (ARIZONA DPS)**

*Trend Since Listing:* Delisted, Taxonomic Change  
*Growth:* n/a  
*Status:* Delisted  
Listed: 1997  
Delisting: 2006  
Recovery Plan: None  
Critical Habitat: 1999

The Arizona distinct population segment of the cactus ferruginous pygmy owl is threatened by the loss of xeric riparian breeding habitat to urban and agricultural development, and water pumping. It was listed as an endangered species in 1997 and delisted in 2006 due to the international border not being a valid population delimiter.
PHOTOGRAPHER CREDITS

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