

U.S. FISH AND WILDLIFE SERVICE SPECIES ASSESSMENT AND LISTING PRIORITY ASSIGNMENT FORM

Scientific Name:

Gallicolumba stairi

Common Name:

Friendly Ground-Dove

Lead region:

Region 1 (Pacific Region)

Information current as of:

06/01/2013

Status/Action

Funding provided for a proposed rule. Assessment not updated.

Species Assessment - determined species did not meet the definition of the endangered or threatened under the Act and, therefore, was not elevated to the Candidate status.

New Candidate

Continuing Candidate

Candidate Removal

Taxon is more abundant or widespread than previously believed or not subject to the degree of threats sufficient to warrant issuance of a proposed listing or continuance of candidate status

Taxon not subject to the degree of threats sufficient to warrant issuance of a proposed listing or continuance of candidate status due, in part or totally, to conservation efforts that remove or reduce the threats to the species

Range is no longer a U.S. territory

Insufficient information exists on biological vulnerability and threats to support listing

Taxon mistakenly included in past notice of review

Taxon does not meet the definition of "species"

Taxon believed to be extinct

Conservation efforts have removed or reduced threats

___ More abundant than believed, diminished threats, or threats eliminated.

Petition Information

___ Non-Petitioned

X Petitioned - Date petition received: 05/11/2004

90-Day Positive:05/11/2005

12 Month Positive:05/11/2005

Did the Petition request a reclassification? **No**

For Petitioned Candidate species:

Is the listing warranted(if yes, see summary threats below) **Yes**

To Date, has publication of the proposal to list been precluded by other higher priority listing?
Yes

Explanation of why precluded:

Higher priority listing actions, including court-approved settlements, court-ordered and statutory deadlines for petition findings and listing determinations, emergency listing determinations, and responses to litigation, continue to preclude the proposed and final listing rules for this species. We continue to monitor populations and will change its status or implement an emergency listing if necessary. The Progress on Revising the Lists section of the current CNOR (<http://endangered.fws.gov/>) provides information on listing actions taken during the last 12 months.

Historical States/Territories/Countries of Occurrence:

- **States/US Territories:** American Samoa
- **US Counties:** Manu'a, AS
- **Countries:** Fiji, Tonga, United States, Western Samoa

Current States/Counties/Territories/Countries of Occurrence:

- **States/US Territories:** American Samoa
- **US Counties:** Manu'a, AS
- **Countries:** Fiji, Tonga, United States, Western Samoa

Land Ownership:

Land ownership in American Samoa generally follows a historic village tradition. Large sections of land around each village are controlled by that village for the use by the village residents. The Manua population of the friendly ground-dove is within the bounds of Manua Village.

Lead Region Contact:

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Lead Field Office Contact:

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Biological Information

Species Description:

The following description is from Watling (2001). The friendly (shy) ground-dove is an approximately 26 centimeter (10.2 inch) long, medium-sized, brown ground-dove. Males have rufous-brown upperparts with a bronze-green iridescence, the crown and nape are grey and the wings rufous with a purplish lustre. The tail is dark brown. The abdomen and belly are dark brown olive, while the breast shield is a vinaceous pink with a white border. Females are dimorphic in Fiji and Tonga but apparently not in Independent Samoa and American Samoa, where only the pale phase occurs. The pale phase is similar to males but rather duller. Immature birds are similar to adults but are uniformly brown.

Taxonomy:

The genus *Gallicolumba* is distributed throughout the Pacific and Southeast Asia. The genus is represented in the oceanic Pacific by six species. Three species are endemic to Micronesian islands or archipelagos, two are endemic to island groups in French Polynesia, and the friendly ground-dove is endemic to Samoa, Tonga, and Fiji (Sibley and Monroe 1990, 1993). Some authors recognize two subspecies of the friendly ground-dove: one, slightly smaller, in the Samoan archipelago (*G. s. stairi*), and the other in Tonga and Fiji (*G. s. vitiensis*) (Mayr 1945). However, morphological differences between the two are slight (Watling 2001), and no genetic or other studies have validated the existence of separate subspecies. We have carefully reviewed the available taxonomic information (Mayr 1945; Sibley and Monroe 1990, 1993; Watling 2001) and have concluded the species is a valid taxon.

Habitat/Life History:

In American Samoa, the friendly ground-dove is typically found on or near steep, forested slopes, particularly those with an open understory and fine scree or exposed soil (Tulafono 2006, pers. comm.). Elsewhere the species is known to inhabit brushy vegetation and bamboo thickets on offshore islands and forest habitats on large, high islands (Watling 1982; Clunie 1999). The only life history information available for this species is that it typically builds a nest of twigs several feet from the ground, lays one or two white eggs, and is an omnivorous feeder (Watling 1982; Clunie 1999).

Historical Range/Distribution:

In American Samoa, the species was first reported on Ofu in 1976 (Amerson et al. 1982) and has been recorded infrequently on Ofu and more commonly on Olosega since the mid-1990s (Seamon 2004a, pers. comm.; Tulafono 2006, pers. comm.). The American Samoan population of friendly ground-dove currently is distributed in American Samoa on the islands of Ofu and Olosega (Manua Group).

Current Range Distribution:

The American Samoan population of friendly ground-doves currently is distributed in American Samoa on the islands of Ofu and Olosega (Manua Group).

Population Estimates/Status:

The friendly ground-dove is uncommon or rare throughout its range (Steadman and Freifeld 1998; Schuster et al. 2000; Freifeld et al. 2001; Watling 2001), except for on some small islands in Fiji (Watling 2001); however, this species is not known to be monitored except in American Samoa. Engbring and Ramsey (1989) described the population on Ofu as very small, but did not attempt a population estimate. More than 10 ground-doves have been caught on Olosega between 2001 and 2004, suggesting that numbers here are greater than on Ofu, but birds may move between the two islands (Seamon 2004a, pers. comm.), which once were a single land mass and are today connected by a causeway that is roughly 150 meters (m) (492 feet (ft)) long. No current population estimate is available as the secretive habits of this species make monitoring difficult. Monitoring surveys over the last several years do not, however, suggest any change in the relative abundance of the friendly ground-dove (Seamon 2004b, pers. comm.).

This species is classified as vulnerable in the International Union for Conservation of Nature and Natural Resources (IUCN) Red Data List database (IUCN 2006), and is included in the Comprehensive Strategy for Wildlife Conservation in American Samoa (Department of Marine and Wildlife Resources (DMWR) 2006).

Distinct Population Segment(DPS):

The definition of species in section 3(15) of the Endangered Species Act (Act) includes any distinct population segment(s) of any species of vertebrate fish or wildlife that interbreed when mature. For a population to be listed under the Act as a distinct vertebrate population segment, three elements are considered: 1) the discreteness of the population segment in relation to the remainder of the species to which it belongs, 2) the significance of the population segment to the species to which it belongs, and 3) the populations segments conservation status in relation to the Acts standards for listing (i.e., is the population segment, when treated as if it were a species, endangered or threatened?) (61 FR 4722).

The friendly ground-dove is found in Fiji, Tonga, Wallis and Futuna, Independent Samoa, and American Samoa. The status of the species as a whole is not monitored closely throughout its range, but based on available information, the friendly ground-dove persists in very small numbers in Independent Samoa (Schuster et al. 2000; Freifeld et al. 2001) and is considered to be among the most endangered of native Samoan bird species (Watling 2001). In Tonga, the species occurs primarily on small, uninhabited islands and in one small area of a larger island (Steadman and Freifeld 1998; Watling 2001). In Fiji, the friendly ground-dove is thought to be widely distributed but uncommon on large islands and relatively common on some small islands (Watling 2001).

The available information indicates that distinct populations of friendly ground-doves, cryptic, understory-dwelling doves not noted for long-distance dispersal, are definable. The distinct population segment of friendly ground-doves in American Samoa is discrete in relation to the remainder of the species as a whole. The genus *Gallicolumba* is widely distributed in the Pacific, but populations of individual species are today restricted to a subset of islands (often small, offshore islets) in any archipelago where they occur, or even to limited areas of single islands (e.g., Steadman and Freifeld 1998; Freifeld et al. 2001; Watling 2001). Therefore, populations of species such as the friendly ground-dove, which occurs in three archipelagos, have become isolated from each other. The population segment of this species in American Samoa (on Ofu and Olosega islands) is therefore distinct based on geographic and distributional isolation from the friendly ground-dove populations in Independent Samoa, Tonga, and Fiji. The distance between the U.S. population and the nearest population, in Samoa, is roughly 161 kilometers (km) (100 miles (mi)). The American Samoan island of Tutuila lies between these two populations; no Tutuila records of the friendly ground-dove exist.

A population segment is considered significant if its loss would constitute a significant gap in the range of the taxon. The American Samoa population of the friendly ground-dove represents the easternmost distribution of this species. The loss of this population would truncate the species range by approximately 161 km (100 mi), or approximately 15 percent of the linear extent of its range, which trends southwest-to-northeast from Fiji to American Samoa. Given the rarity with which this species appears in survey data from Independent

Samoa, loss of the American Samoa population may decrease the likelihood of the friendly ground-doves long-term persistence in the Samoan archipelago. Southwest of Samoa, the next location where this species is known to occur is the Vava`u Group in Tonga, roughly 563 km (350 mi) away. Unlike other Pacific Island columbids, this species does not fly high above the canopy; it is an understory species that forages largely on the ground and nests near the ground (Watling 2001). Therefore, the likelihood of recolonization over large distances is low.

Based on the discreteness and significance of the American Samoa population of the friendly ground-dove, the U.S. Fish and Wildlife Service (FWS) considers this population to be a distinct vertebrate population segment which warrants review for listing under the Act. The distinct population segment of the friendly ground-dove faces moderate but imminent threats. See Summary of Threats and Rationale for Listing Priority Number sections, below.

Threats

A. The present or threatened destruction, modification, or curtailment of its habitat or range:

Clearing of lowland rainforests has been implicated as a limiting factor for these populations. At present, none of the land-clearing or development projects proposed for Ofu or Olosega have been approved or initiated in areas known to be frequented by the friendly ground-dove (Tulafono 2006, pers. comm.).

B. Overutilization for commercial, recreational, scientific, or educational purposes:

Incidental shooting of this species by hunters may be an important threat. But despite its name, the friendly ground-dove is actually shy and secretive, so it is not likely that hunting is a primary threat.

C. Disease or predation:

Nest predation by rats (*Rattus* spp.) is an important threat to many island birds (Atkinson 1977, 1985), especially ground-nesting species (Moors and Atkinson 1984; Bertram and Nagorsen 1995; Flint 1999; Zino et al. 2001). For example, black rats (*R. rattus*) were responsible for the near extirpation of the burrow-nesting Galapagos petrel on Floreana Island (Cruz and Cruz 1987) and for the extinction of the ground-nesting Laysan rail (*Porzana palmeri*), which had been translocated to Midway Atoll prior to the loss of the Laysan population (Fisher and Baldwin 1946). Rats thus may play a role in limiting populations of the friendly ground-dove, although no specific data from American Samoa exist with which to test this hypothesis. Feral cats (*Felis domesticus*) have been observed in remote areas known to be frequented by ground-doves and may prey on friendly ground-doves and other ground-nesting species. Recent investigations suggest that avian malaria may be indigenous and non-pathogenic in American Samoa, and therefore is unlikely to limit bird populations there (Jarvi et al. 2003; Seamon 2004a, pers. comm.). Although other blood parasites are common in many bird species in American Samoa, none have been reported to date in the friendly ground-dove samples (Atkinson et al. 2006). No information is available about the effects of other avian diseases on this species.

D. The inadequacy of existing regulatory mechanisms:

The inadequacy of existing regulatory mechanisms does not appear to be a threat to this species. Hunting bans are ongoing in American Samoa, and the American Samoa Government DAWR has statutory authority to enforce these bans as well as authority to restrict development and habitat modification that may affect species such as the friendly ground-dove. Poaching is not currently considered a threat to the friendly ground-dove (Seamon 2004a, b, pers. comm.).

E. Other natural or manmade factors affecting its continued existence:

Small populations are particularly sensitive to thresholds in a range of environmental and demographic parameters (Pimm et al. 1988; Mangel and Tier 1994; Meffe and Carroll 1997). This small population may be at risk of extinction because of the low number of individuals and the high frequency of catastrophic events such as hurricanes. Although severe storms are a natural disturbance with which this species has coexisted for millennia, such storms may affect habitat and food resources for birds and thus increase the threats to a population already suffering predation by nonnative mammals. For example, Hurricanes Heta (in January 2004) and Olaf (in February 2005) virtually destroyed suitable habitat at one of the areas on Olosega where this species was most frequently encountered; detections of ground-doves in other areas subsequently increased, suggesting they had moved from the area affected by the storms (Seamon 2005, pers. comm.; Tulafono 2006, pers. comm.). Inbreeding and/or reduced likelihood of locating mates are also potential threats for small populations (Thevenon and Couvet 2002; Frankham 2003).

Conservation Measures Planned or Implemented :

Ongoing bans on hunting native species in American Samoa provide protection for this species, and its status is monitored through regular surveys (described below). In addition, DMWR has an ongoing rat-trapping project at two sites on Ofu, which likely benefits the friendly ground-dove (Seamon 2004a, pers. comm.).

An analysis of distribution of the friendly ground-dove is currently being prepared by Joshua Seamon, former Wildlife Biologist at DMWR. Future objectives for study of this species in American Samoa include

1. reporting on current knowledge of the species in American Samoa and other islands within range,
2. assessing the population status in Ofu/Olosega, and
3. developing a regional conservation plan for the friendly ground-dove.

Summary of Threats :

The American Samoa Distinct Population Segment of the friendly ground-dove is suspected to be threatened by predation by nonnative mammals and by natural catastrophes such as hurricanes, which pose a threat due to the small population size and limited distribution of this taxon. Based on our evaluation of these ongoing threats, we conclude that there is sufficient information to develop a proposed listing rule for this species. We find that this distinct population segment is warranted for listing throughout all its range, and, therefore, find that it is unnecessary to analyze whether it is threatened or endangered in a significant portion of its range.

For species that are being removed from candidate status:

_____ Is the removal based in whole or in part on one or more individual conservation efforts that you determined met the standards in the Policy for Evaluation of Conservation Efforts When Making Listing Decisions(PECE)?

Recommended Conservation Measures :

- Determine population size and status of the species
- Conduct studies on basic life history characteristics of the species
- Control predators (rats, cats) at known colonies
- Determine other limiting factors and implement control measures

Priority Table

Magnitude	Immediacy	Taxonomy	Priority
High	Imminent	Monotypic genus	1
		Species	2
		Subspecies/Population	3
	Non-imminent	Monotypic genus	4
		Species	5
		Subspecies/Population	6
Moderate to Low	Imminent	Monotypic genus	7
		Species	8
		Subspecies/Population	9
	Non-Imminent	Monotype genus	10
		Species	11
		Subspecies/Population	12

Rationale for Change in Listing Priority Number:

Magnitude:

The magnitude of threats facing the American Samoa Distinct Population Segment of the friendly ground-dove is moderate. The threats to this species from predation by nonnative mammals, small population size, and limited distribution are ongoing, but do not appear to be of high magnitude given the fact that the monitoring surveys have not shown any change in the relative abundance of the friendly ground-dove, at least in the last several years (Seamon 2004b, pers. comm.).

Imminence :

Threats to the friendly ground-dove are imminent because they are ongoing.

Yes No Have you promptly reviewed all of the information received regarding the species for the purpose of determination whether emergency listing is needed?

Emergency Listing Review

No Yes Is Emergency Listing Warranted?

The species does not appear to be appropriate for emergency listing at this time because the immediacy of the threats is not so great as to imperil a significant proportion of the taxon within the timeframe of the routine listing process. If it becomes apparent that the routine listing process is insufficient to prevent significant losses that may result in this species' extinction, then the emergency rule process for this species will be initiated. We will continue to monitor the status of the friendly ground-dove as new information becomes available. This review will determine if a change in status is warranted, including the need to make prompt use of emergency listing procedures.

Description of Monitoring:

The DMWR, an agency of the American Samoa Government, is responsible for monitoring the friendly ground-dove and is the sole source of current, on-the-ground information about wildlife in the Territory. This

agency is funded through the U.S. Fish and Wildlife Services Federal Assistance program for wildlife restoration on an annual basis to monitor and manage the fish and wildlife resources of the Territory of American Samoa, and the FWS requests annual updates from DMWR on the status of candidate species. We also requested information from biologists with the National Park of American Samoa, reviewed current scientific literature to seek new published information about the species in Samoa and elsewhere in its range, and sent our most current information to regional and species experts for review. We received the latest update from DMWR on August 31, 2006; other queries and literature review yielded no new information. The friendly ground-dove is a secretive species and somewhat difficult to monitor. Several survey methods are therefore employed at a wide array of sites as part of regular surveys of birds in the Manua Islands. Surveys on Ofu and Olosega include annual visual surveys at six sites, biannual auditory surveys at four sites, and mist-net (mark-recapture) surveys at five sites at least annually. These surveys, which have been conducted for the past several years, have so far not yielded evidence of significant change in the relative abundance of the friendly ground-dove (Seamon 2004b, pers. comm.). The rate of detection of this secretive bird is insufficient to develop an estimate of total population size. However, the methods, frequency, and geographic coverage of monitoring surveys for this species are adequate to detect changes in distribution and trends in relative abundance over time.

Indicate which State(s) (within the range of the species) provided information or comments on the species or latest species assessment:

none

Indicate which State(s) did not provide any information or comment:

American Samoa

State Coordination:

On February 22, 2013, we sent a letter to the American Samoa Department of Marine and Wildlife Resources requesting their review and comment on our most recent candidate assessment of this species. No additional information or comments were received.

Literature Cited:

Amerson, A.B., Jr., W.A. Whistler, and T.D. Schwaner. 1982. Wildlife and wildlife habitat of American Samoa. II. Accounts of flora and Fauna. U.S. Fish and Wildlife Service. 151 pp.

Atkinson, C.T., R.C. Utzurrum, J.O. Seamon, A.F. Savage, and D.A. LaPointe. 2006. Hematozoa of forest birds in American Samoa evidence for a diverse, indigenous parasite fauna from the South Pacific. *Pacific Conservation Biology* 12:229-237.

Atkinson, I.A.E. 1977. A reassessment of factors, particularly *Rattus rattus* L., that influenced the decline of endemic forest birds in the Hawaiian Islands. *Pacific Science* 31:109-133.

Atkinson, I.A.E. 1985. The spread of commensal species of *Rattus* to oceanic islands and their effects on island avifaunas. Pp 35-81. In Moors, P.J. (ed.), *Conservation of island birds*. Tech. Publ. No. 3, Int. Coun. Bird Preserv., Cambridge, England.

Bertram, D., and D. Nagorsen. 1995. Introduced rats *Rattus* spp. on the Queen Charlotte Islands: implications for seabird conservation. *Canadian Naturalist* 10:6-10.

Clunie, F. 1999. *Birds of the Fiji bush*. Fiji Museum, Suva, Fiji. 142 pp.

Cruz, F., and J.B. Cruz. 1987. Control of black rats (*Rattus rattus*) and its effect on nesting dark-rumped petrels in the Galapagos Islands. *Vida Silvestre Neotropical* 1:3-13.

(DMWR) Department of Marine and Wildlife Resources. 2006. A comprehensive strategy for wildlife conservation in American Samoa (R.C.B. Utzurrum, J.O. Seamon, and K. Schletz Saili, authors). DMWR, Pago Pago. 109 pp.

Engbring, J., and F.L. Ramsey. 1989. A 1986 survey of the forest birds of American Samoa. U.S. Fish and Wildlife Service. 145 pp.

Fisher, H.I., and P.H. Baldwin. 1946. War and the birds of Midway Atoll. *Condor* 48:3-15.

Flint, E. 1999. Status of seabird populations and conservation in the tropical island Pacific. In Eldredge, L.P., P. Holtus, and J. Maragos (eds.), *Marine and coastal biodiversity in the tropical island Pacific region: population, development, and conservation priorities*, vol. 2. East-West Center, Honolulu, Hawaii. 32 pp. plus appendices.

Frankham, R. 2003. Genetics and conservation biology. *C.R. Biologies*, 326 Suppl 1:S22-9.

Freifeld, H.B., D.W. Steadman, and J.K. Sailer. 2001. Observations of birds on offshore islands in Samoa. *Journal of Field Ornithology* 72:72-85.

(IUCN) International Union for Conservation of Nature and Natural Resources. 2006 IUCN Red List of Threatened Species. www.iucnredlist.org, downloaded on February 15, 2007.

Jarvi, S.I., M.E.M. Farias, H. Baker, H.B. Freifeld, P.E. Baker, E. Van Gelder, J.G. Massey, C. T. Atkinson. 2003. Detection of avian malaria (*Plasmodium* sp.) in native land birds of American Samoa. *Conservation Genetics* 4:629-637.

Mangel, M., and C. Tier. 1994. Four facts every conservation biologist should know about persistence. *Ecology* 75:607-614.

Mayr, E. 1945. *Birds of the Southwest Pacific*. The Macmillan Company, New York, NY. 316 pp.

Meffe, G.K., and C.R. Carroll. 1997. *Principles of Conservation Biology*, 2nd ed. Sinauer Associates, Sunderland, MA. 729 pp.

Moors, P.J., and I.A.E. Atkinson. 1984. Predation on seabirds by introduced animals, and factors affecting its severity. Pp. 667-690. In Croxall, J.P., P.G.H. Evans, and R.W. Schreiber (eds.), *Status and conservation of the world's seabirds*, Int. Coun. Bird Preserv. Tech. Bull. No. 2, Cambridge, U.K.

Pimm, S., H.L. Jones, and J. Diamond. 1988. On the risk of extinction. *American Naturalist* 132(6):757-785.

Schuster, C., A. Whistler, and T.S. Tuaillemafuna. 2000. *The conservation of biological diversity in upland ecosystems of Samoa*. Division of Environment and Conservation, Apia, Samoa. 164 pp.

Sibley, G., and B.L. Monroe, Jr. 1990. *Distribution and Taxonomy of Birds of the World*. Charles Yale University Press, New Haven and London. 1111 pp.

Sibley, G., and B.L. Monroe, Jr. 1993. *Supplement to Distribution and Taxonomy of Birds of the World*. Yale University Press, New Haven and London. 108 pp.

Steadman, D.W., and H. B. Freifeld. 1998. Distribution and relative abundance of landbirds in the Vavau

group, Kingdom of Tonga. Condor 100:609-628.

ThÃ©venon, S., and D. Couvet. 2002. The impact of inbreeding depression on population survival depending on demographic parameters. *Animal Conservation* 5:53-60

Watling, D. 1982. *Birds of Fiji, Tonga, and Samoa*. Millwood Press, Wellington, New Zealand. 176 pp.

Watling, D. 2001. *Birds of Fiji and Western Polynesia*. South Pacific Regional Environmental Programme, Apia, Samoa. 272 pp.

Zino, F., P. Oliviera, S. King, A. Buckle, M. Biscoito, H. Costa Neves, and A. Vasconcelos. 2001. Conservation of Zinos petrel *Pterodroma madeira* in the archipelago of Madeira. *Oryx* 35:128-135.

Personal Communications and In Litteris

Seamon, J.O. DMWR. 2004a. Electronic mail message to Holly Freifeld, FWS, regarding candidate status updates for American Samoa, dated May 31, 2004.

Seamon, J.O. DMWR. 2004b. Electronic mail message to Holly Freifeld, FWS, regarding likelihood of poaching and population estimates for the friendly ground-dove, dated June 4, 2004.

Seamon, J.O. DMWR. 2005. Electronic mail message to Holly Freifeld, FWS, regarding re-request for assistance: Am. Samoa birds candidate assessments, dated September 20, 2005.

Tulafono, U.R. DMWR. 2006. Letter to Patrick Leonard, FWS in response to request for review of the draft candidate assessment forms, dated August 31, 2006.

Tulafono, U.R. Director, American Samoa DMWR. Emailed letter dated March 31, 2011, regarding the Departments response to candidate assessment forms. Received April 4, 2011.

Approval/Concurrence:

Lead Regions must obtain written concurrence from all other Regions within the range of the species before recommending changes, including elevations or removals from candidate status and listing priority changes; the Regional Director must approve all such recommendations. The Director must concur on all resubmitted 12-month petition findings, additions or removal of species from candidate status, and listing priority changes.

Approve:



06/13/2013

Date

Concur:



10/28/2013

Date

Did not concur:

Date

Director's Remarks: