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

SCIENTIFIC NAME: *Porzana tabuensis*

COMMON NAME: Spotless crake (American Samoa Distinct Population Segment)

LEAD REGION: Region 1

INFORMATION CURRENT AS OF: April 2007

STATUS/ACTION

___ Species assessment - determined we do not have sufficient information on file to support a proposal to list the species and, therefore, it was not elevated to Candidate status
___ New candidate
_X_ Continuing candidate
___ Non-petitioned
_X_ Petitioned - Date petition received: May 11, 2004
_ 90-day positive - FR date:
X 12-month warranted but precluded - FR date: May 11, 2005
N Did the petition request a reclassification of a listed species?

FOR PETITIONED CANDIDATE SPECIES:
a. Is listing warranted (if yes, see summary of threats below)? Yes
b. To date, has publication of a proposal to list been precluded by other higher priority listing actions? Yes
c. If the answer to a. and b. is "yes," provide an explanation of why the action is precluded.

We find that the immediate issuance of a proposed rule and timely promulgation of a final rule for this species has been, since publication of the last CNOR, and continues to be, precluded by higher priority listing actions (including candidate species with lower LPNs) because most of our national listing budget has been consumed by work on various listing actions to comply with court orders and court-approved settlement agreements, meeting statutory deadlines for petition findings or listing determinations, emergency listing evaluations and determinations, and essential litigation-related, administrative, and program management tasks. We will continue to monitor the status of this species 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. For information on listing actions taken, see the discussion of "Progress on Revising the Lists" in the current CNOR, which can be viewed on our Internet website (http://www.fws.gov/endangered).

___ Listing priority change
Former LP: ___

New LP: ___

Date when the species first became a Candidate (as currently defined): November 15, 1994

___ Candidate removal: Former LPN: ___

___ A – 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.

___U – 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.

___ F – Range is no longer a U.S. territory.

___ I – Insufficient information exists on biological vulnerability and threats to support listing.

___ M – Taxon mistakenly included in past notice of review.

___ N – Taxon does not meet the Act's definition of "species."

___ X – Taxon believed to be extinct.

ANIMAL/PLANT GROUP AND FAMILY: Birds: Family Rallidae (Rails)

HISTORICAL STATES/TERRITORIES/COUNTRIES OF OCCURRENCE: Philippines, Australia, Fiji, Tonga, Society Islands, Marquesas, Independent Samoa, and American Samoa (Ofu, Tau).

CURRENT STATES/COUNTIES/TERRITORIES/COUNTRIES OF OCCURRENCE: Philippines, Australia, Fiji, Tonga, French Polynesia, Independent Samoa, and American Samoa (Tau).

LAND OWNERSHIP: All of the land on which the spotless crake occurs in American Samoa is privately owned, but is under long-term lease (50 years) to the U.S. National Park Service as part of the National Park of American Samoa.

LEAD REGION CONTACT: Scott McCarthy, (503) 231-6131, scott_mccarthy@fws.gov

LEAD FIELD OFFICE CONTACT: Pacific Islands Fish and Wildlife Office, Christa Russell, (808) 792-9400, christa_russell@fws.gov

BIOLOGICAL INFORMATION

Species Description

The following description is from Watling (2001). The spotless crake is a very small rail, approximately 6 inches (15 centimeters) in length, and appears entirely black at first glance. On closer observation the grey wash on the neck, head and underparts, and its dark brown mantle and wings, are noticeable. Also conspicuous are the red iris and legs. The bill is black. Immature birds have white marks on the chest and abdomen.

Taxonomy

The genus *Porzana* is widespread in the Pacific, where it is represented by numerous island-endemic and flightless species (many of which are extinct as a result of anthropogenic disturbances) as well as several more cosmopolitan species, including *P. tabuensis*. No subspecies of *P. tabuensis* are recognized (Mayr 1945; Pratt *et al*. 1987; del Hoyo *et al*. 1996). We have carefully reviewed the available taxonomic information (Mayr 1945; Pratt *et al*. 1987; del Hoyo *et al*. 1996) and have concluded the species is a valid taxon.

Habitat/Life History

Until 2001, all sightings of this species in American Samoa were from the island of Tau in marshy habitat or tall, moist, grassy swales, and this is typical of its habitat elsewhere (Watling 1982, 2001). In 2001, however, the spotless crake was discovered in dense cloud forest (rank vegetation) on the summit of Tau on Mt. Lata (Rauzon and Fialua 2003), the highest point in American Samoa. This is now the only known site where this species is found in American Samoa.

The following is summarized from the account of this species in the Handbook of the Birds of the World (del Hoyo *et al*. 1996.) This species typically nests once annually, and builds a cup nest of grasses on or near the ground, in dense vegetation. Island populations probably produce fewer than the average of 3 – 4 eggs recorded in continental populations. The spotless crake is territorial and monogamous and may form lifetime pair bonds.

Historical Range/Distribution

In American Samoa, the spotless crake was known from a series of 10 specimens that were collected from Tau in 1923 during the Whitney South Sea Expedition (Murphy 1924; Banks 1984).

Current Range/Distribution

This species was not found during surveys in 1976 (Amerson *et al*. 1982), and was reported as extirpated on Tau (Muse and Muse 1982), but three individuals were detected on Tau from 1985 to 1987 (Engbring and Engilis 1988; Engbring and Ramsey 1989). The spotless crake was rediscovered on the summit of Tau (Mt. Lata) in 2001, at roughly 3,100 feet (ft) (945 meters (m)) (Rauzon and Fialua 2003). In July 2001, two birds were heard and seen in dense vegetation near the summit field camp, and a similar small number of individuals were heard on the summit in December 2001 and December 2002 (Rauzon and Fialua 2003). One bird was heard within 3,281 ft (1,000 m) of the same area in November 2003 (J. Seamon, Department of Marine and Wildlife Resources (DMWR), pers. comms. 2004 and 2007). The spotless crake may occur in other remote areas of Tau, but difficult access and the extremely cryptic nature of this species complicate survey efforts.

Population Estimates/Status

The population of the spotless crake in American Samoa is presumed to be very small and restricted to the summit of Tau Island. No current population estimate is available; the secretive habits of this species and difficult access to the summit of Tau make monitoring extremely

difficult. In 2001, two crakes were observed during seabird surveys on the Tau summit (Rauzon and Fiaula 2003), and at least one bird was heard calling in the same area in 2003 (J. Seamon, pers. comms. 2004 and 2007). No visits have been made to the Tau summit since 2003. The presence of the species in other areas of Ta`u or American Samoa cannot be ruled out, but to date surveys have yielded no additional observations.

DISTINCT POPULATION SEGMENT (DPS)

The definition of "species" in section 3(15) of the Endangered Species Act (Act) includes any distinct population segment(s) (DPS) 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 segment's conservation status in relation to the Act's standards for listing (i.e., is the population segment, when treated as if it were a species, endangered or threatened?) (61 FR 4722).

The available information indicates that distinct populations of the spotless crake, a species not noted for long-distance dispersal, are definable. The DPS of spotless crakes in American Samoa is discrete in relation to the remainder of the species as a whole. Although the spotless crake (and other rails) have dispersed widely in the Pacific, island rails have tended to reduce or lose their power of flight over evolutionary time and so become isolated (Watling 2001). The population segment of this species in American Samoa is therefore distinct based on geographic and distributional isolation from spotless crake populations on other islands in the oceanic Pacific, the Philippines, and Australia.

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 spotless crake represents an important link in the Pacific range of the species; it is the link between the Central and Eastern Pacific portions of the species' range. The loss of this population could cause an increase of roughly 500 miles (805 kilometers) in the disjunction between the Central and Eastern Polynesian portions of the spotless crake's range in the Pacific, and could result in the increased isolation of the Marquesas and Society Islands populations by further limiting the potential for genetic exchange.

Based on the discreteness and significance of the American Samoa population of the spotless crake, the U.S. Fish and Wildlife Service (Service) considers this population to be a distinct vertebrate population segment which warrants review for listing under the Act. The DPS of the spotless crake faces imminent, severe threats. See SUMMARY OF THREATS and Rationale for Listing Priority Number, below.

THREATS

A. <u>The present or threatened destruction, modification, or curtailment of its habitat or range</u>. The loss of wetland habitat probably contributed to the species' likely extirpation from lowland habitats where it was recorded formerly. Almost all wetlands in American Samoa have been lost

or converted to agricultural fields. The non-wetland habitat where the species is known to occur today on the summit of Tau Island is afforded some protection from human disturbance by its remote location and its status as part of the National Park of American Samoa. The continuing loss of wetlands will further limit opportunities for restoration and conservation of the taxon.

B. Overutilization for commercial, recreational, scientific, or educational purposes.
None known.

C. Disease or predation.
Trapping on the summit of Tau, site of the only known population of spotless crakes in American Samoa, revealed the presence of at least one species of rat, the Norway rat (Rattus norvegicus) (O'Connor and Rauzon 2004). Rats are known to prey on the eggs, nestlings, and sometimes on adults of island bird species (Atkinson 1977, 1985) and ground-nesting species are especially vulnerable (Bertram and Nagorsen 1995; Flint 1999; Zino *et al*. 2001). Rail species all over the Pacific have been decimated by predation (Steadman 1995). Predation by rats likely poses a significant threat for this small, ground-nesting bird.

D. The inadequacy of existing regulatory mechanisms.
Wetlands, which may be an important habitat for this species and a refugium from rats and other predators (Watling 2001), are protected under American Samoa Government and U.S. Federal laws, but enforcement of these laws historically has been weak (J. Seamon, pers. comm. 2004). The Park Service has sporadically indicated interest in controlling predators on the summit of Tau Island, but logistics and costs have so far proven prohibitive (O'Connor and rauzon 2004).

E. Other natural or manmade factors affecting its continued existence.
The probable low number of individuals and the extremely restricted distribution of this population places this species at great risk of extinction in American Samoa from stochastic events such as hurricanes and from inbreeding depression (Meffe and Carroll 1997; Thevenon and Couvet 2002; Frankham 2003). Hurricanes may cause the direct and indirect mortality of some birds, as well as modify the already limited habitat. This species has coexisted with hurricanes for millennia in Samoa. If the spotless crake were widely distributed in American Samoa, had ample habitat and sufficient numbers, and were not under chronic pressure from anthropogenic threats such as introduced predators, it might recover from hurricane-related mortality and the temporary loss or redistribution of resources in the wake of severe storms. However, this species' current status in American Samoa makes it highly vulnerable to a single, chance event. Two hurricanes (Heta in 2004 and Olaf in 2005) have hit Samoa since the last visit to the Tau summit in 2003, and the impact of these storms to the crake and its habitat are unknown. The remote location of the one known population and the concomitant logistical and fiscal challenges make conservation actions such as monitoring surveys and rat control difficult to accomplish.

CONSERVATION MEASURES PLANNED OR IMPLEMENTED
DMWR has conducted surveys on Tau in habitats and locations other than the summit that potentially harbor spotless crakes but these surveys have not yielded additional observations (J. Seamon, pers. comm. 2004). Currently, rodenticides may not be utilized to control rats in the

spotless crake's habitat on the summit of Tau, due to registration restrictions. Applications to change the registrations to allow the use of certain rodenticides in bait stations and to allow for hand- and aerial-broadcast are currently pending (O'Connor and Rauzon 2004).

SUMMARY OF THREATS

The population in American Samoa is threatened by small population size, limited distribution, and predation by nonnative mammals. The loss of wetlands is a continuing threat, as well. The co-occurrence of the only known population of the spotless crake under U.S. jurisdiction with a known predator of ground-nesting birds, the Norway rat, along with the extremely restricted observed distribution and low numbers of this taxon indicate that the American Samoa DPS of the spotless crake continues to merit status as a candidate for listing. 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

- Conduct surveys in suitable habitat for additional individuals/populations
- Conduct studies to determine habitat requirements and basic life history of the species
- Control predators (rats) at known locations
- Determine other limiting factors and implement control measures

LISTING PRIORITY

THREAT			
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	Monotypic genus	10
		Species	11
		Subspecies/population	12

Rationale for listing priority number:

Magnitude:
The magnitude of the threats facing the spotless crake is high because of its observed small population and limited distribution, and the especially serious threat posed by introduced predators. Populations of other ground-nesting island birds, including populations of this species on other islands and numerous other rail species, have been limited or extirpated by such predators. Single, small populations are vulnerable to inbreeding depression, and are significantly more vulnerable than widespread, abundant species to substantial reductions or extinction resulting from direct mortality or habitat destruction caused by chance natural occurrences such as hurricanes. The entire American Samoa population of this taxon is likely to be affected by these threats.

Imminence:
Threats to the spotless crake (predation and small population size) are imminent because they are ongoing.

Yes Have you promptly reviewed all of the information received regarding the species for the purpose of determining whether emergency listing is needed?

Is Emergency Listing Warranted? No. 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. In addition, the population on American Samoa is afforded some protection and management because it occurs within the National Park of American Samoa. We will continue to monitor the status of the spotted crake in American Samoa 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
DMWR is responsible for monitoring the spotless crake, 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 Service's 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 Service requests annual updates from DMWR on the status of candidate species. We also review current scientific literature to seek new published information about the species in Samoa and elsewhere in its range, and we send 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. In addition to the surveys described under "CONSERVATION MEASURES PLANNED OR IMPLEMENTED" above, irregular visits are made to the Tau summit, where the agency conducts surveys using night-vision and videography to verify that the spotless crake still is present. The last visit was made in 2003, and two hurricanes have struck Samoa since then. The current rate of detection of this species is

insufficient to accurately estimate total population size. The spotless crake is a cryptic species and its only known occurrence in American Samoa is in an extremely remote location, therefore it is difficult to monitor. While more intensive population monitoring would certainly be desirable given these challenges, our assessment uses the best available scientific and commercial data, and is therefore adequate to conduct our annual assessment.

This species is classified as a taxon of Least Concern (LC) in the International Union for Conservation of Nature and Natural Resources (IUCN) Red Data List database (IUCN 2006), and is included as a priority species for new studies in the Comprehensive Strategy for Wildlife Conservation in American Samoa (DMWR 2006).

COORDINATION WITH STATES

The latest assessment form was sent to Ray Tulafono, the Director of the American Samoa Department of Marine and Wildlife Resources on July 13, 2006. He responded on August 31, 2006, stating that there was no update for this species.

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Personal Communications and *in litt.*:

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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: _____ 6/1/07
Regional Director, Fish and Wildlife Service Date

Concur: Kenneth Stansell November 27, 2007
Acting Director, U.S. Fish and Wildlife Service Date

Do not concur: _____
Director, Fish and Wildlife Service Date

Director's Remarks:

Date of annual review: Date: April 10, 2007
Conducted by: Karen Rosa, Pacific Islands FWO
Biologist, Prelisting and Listing Program

Comments:
PIFWO Review

Reviewed by: Christa Russell Date: April 13, 2007
Prelisting and Listing Program Coordinator

Gina Shultz Date: April 13, 2007
Assistant Field Supervisor,
Endangered Species

Patrick Leonard Date: April 13, 2007
Field Supervisor