Threatened Birds of Asia:
The BirdLife International Red Data Book

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Threatened birds of Asia

MATSUDAIRA’S STORM-PETREL

Oceanodroma matsudairae

DISTRIBUTION The only known breeding colonies of Matsudaira’s Storm-petrel are on the Iwo (Volcano) islands in southern Japan. After the breeding season it moves south across the equator, perhaps to the Timor Sea off north-west Australia and then west into the Indian Ocean, where it winters mostly in the rich waters of the equatorial belt around the Seychelles and west to Somalia and Kenya, but some birds may winter off north-east New Guinea (Bailey et al. 1968, Marchant and Higgins 1990, del Hoyo et al. 1992).

JAPAN It is locally common off the Iwo islands, where it is known to breed, and off the Ogasawara islands, where it may also breed, and is a rare visitor to Japanese waters further north (Brazil 1991). Records (by island and prefecture) are as follows:

Honshu ■ Miyagi Shizugawa, 1956 (Brazil 1991); ■ Kanagawa Sagami bay, five males collected, May 1921 (Austin and Kuroda 1953);

Chichi-jima island, Ogasawara islands, many seen in July 1987 and July 1988, and presumably breeding (Brazil 1991);

Haha-jima island, Ogasawara islands, many seen in July 1987 and July 1988, and presumably breeding (Brazil 1991);

Kita-iwo-jima island, Iwo islands, breeding, undated (Austin and Kuroda 1953, Ornithological Society of Japan 1974 in Hasegawa 1984);

The distribution of Matsudaira’s Storm-petrel Oceanodroma matsudairae: (1) Shizugawa; (2) Sagami bay; (3) Chichi-jima; (4) Haha-jima; (5) Kita-iwo-jima; (6) Iwo-jima; (7) Minami-iwo-jima; (8) Ishigaki-jima.

**Oceanodroma matsudairae**

*Iwo-jima* island, Iwo islands, breeding, undated (Brazil 1991);

*Minami-iwo-jima* (San Augustino) island, Iwo islands, many nesting near the top of the island, June 1982 (Tsukamoto 1982 in Hasegawa 1984);


**INDONESIA** There are records from Maluku and Nusa Tenggara, and an unconfirmed report off Sulawesi, and there is evidence that it is migrates through Indonesian seas en route to the Indian Ocean (White and Bruce 1986). Records (by island) are as follows:

- **Lombok** Lombok Strait (not mapped), one, May 1988 (Johnstone *et al.* 1993);
- **Sumbawa** east of Sumbawa (not mapped), undated (Coates and Bishop 1997);
- **Flores** off the coast of Flores, from the Ende to Kupang ferry (not mapped), up to eight, July–August 1997, there had been two previous records from Flores (north of Flores and in the Flores Sea: Coates and Bishop 1997) (Pilgrim *et al.* 1997);
- **Sulawesi** north-east of Sulawesi (not mapped), several dark storm-petrels thought to be this species, July 1959 (Shewell 1960 in White and Bruce 1986);
- **Halmahera** (not mapped), one collected, August (unspecified year) (White and Bruce 1986);
- **Seram** between Ambon and Seram (not mapped), undated (Coates and Bishop 1997);
- **Sawu** south of Sawu, undated (Coates and Bishop 1997);
- **Banda Sea** at sea north of Timor (not mapped) at 8°27′S 125°00′E, two seen, July 1965, and seen daily in the Banda Sea north to the equator at 0°10′S 126°43′E (Bailey *et al.* 1968); midway between Gunungapi and Wetar (not mapped), at least three seen, June 1990 (Bishop 1992a); between Namlea and Ambon (not mapped), August 1998 (I. Mauro in litt. 1999).

**POPULATION** No numerical data are available on the population of this species (del Hoyo *et al.* 1992). It has been reported to be “locally common” around the Iwo and Ogasawara islands (Brazil 1991), and “many birds” were found nesting near the top of Minami-iwo-jima island in June 1982 (Tsukamoto 1982 in Hasegawa 1984). During a survey in the 1960s, there were many sightings in the western Indian Ocean, and daily sightings in the Banda Sea in Indonesia (Bailey 1968, Bailey *et al.* 1968). In Indonesian waters dispersed groups of up to 30 birds have been recorded (Coates and Bishop 1997).

**ECOLOGY**

**Habitat** Matsudaira’s Petrel is a pelagic species, normally occurring far from the coast, frequently in warm waters but also sometimes associated with local areas of upwelling and convergence; it breeds on high ground on offshore islands (del Hoyo *et al.* 1992).

**Food** Little information is available on its diet, although it is known sometimes to follow ships and feed on galley waste; it feeds mainly on the wing, by dipping and snatching from the surface (del Hoyo *et al.* 1992).

**Breeding** It is colonial, and nests in burrows (del Hoyo *et al.* 1992). It breeds from January to June, with egg-laying from mid-March to late April and fledging occurring from early to mid-June (Momiyama 1930, 1959 and Nakamura 1975 in Brazil 1991).

**Migration** It is a long-distance migrant that is thought to move south across the equator after the breeding season, perhaps to the Timor Sea off north-west Australia and then west into the Indian Ocean, where it winters mostly in the rich waters of the equatorial belt around the Seychelles and west to Somalia and Kenya (Marchant and Higgins 1990, del Hoyo *et al.* 1992). It is most common in the western Indian Ocean from June to September, and present at least from March to November; primary moult was recorded in June, July and September, which is consistent with a spring breeding season, and strongly supports the view that the birds in the Indian Ocean are from the population on the Iwo islands (Bailey *et al.* 1968).
THREATS This species is known to nest at just a handful of localities (although it is feasible that more breeding sites could be found in the future), and therefore potentially at risk, but no specific threats are known. Given the inaccessibility of its nesting colonies, it is thought unlikely that it is being affected by any human activities (T. Morioka in litt. 1999). Nevertheless, the extinction of the putative race brevipes of the White-browed Crake Porzana cinerea on the islands of Iwo-jima and Minami-iwo-jima has been attributed to predation of cats, and rats are also present on the islands (Greenway 1967, Taylor 1998), so it is a matter of considerable concern that significant predation pressure may affect the species.

MEASURES TAKEN In Japan, this species is considered to be “data deficient” because of the lack of information on it, and “near threatened” because of its limited breeding range (Chiba 1998). However, it is not officially protected.

MEASURES PROPOSED Legislation The species should be officially protected in Japan, the only known breeding range state.

Research The breeding sites of this species had not been visited since the mid-1980s (N. Oka in litt. 1999). It is difficult to land on these islands because they are surrounded by precipices, and access is prohibited; however, staff of NHK (a Japanese Television company) planned to land on Kita-Iwo-jima during 2000 to film the wildlife (T. Morioka in litt. 1999), but it is not yet known whether they found any new information relevant to the conservation of Matsudaira’s Storm-petrel. Detailed survey work is required to determine the population size and trends (del Hoyo et al. 1992). In particular, it is essential to determine as soon as possible what the effects are of rat and cat predation on the species and whether these introduced mammals occur on all the islands where the petrel breeds. Moreover, the Japanese authorities need to be prepared to move very swiftly to embark on appropriate control and eradication programmes as soon as it is clear that a problem exists on any one of the breeding islands.