

## **FORK-TAILED STORM-PETREL** *Oceanodroma furcata*

### **Conservation Status**

**ALASKA:** Low

**N. AMERICAN:** Not Currently At Risk

**GLOBAL:** Least Concern

Breed	Eggs	Incubation	Fledge	Nest	Feeding Behavior	Diet
June-Sept	1	46-51 d	51-61 d	burrow, crevice	hover, surface dip	crustaceans, fish, oil

### **Life History and Distribution**

These medium-sized storm-petrels are members of the tubenose order of seabirds. Some other seabirds included in this group are albatrosses, shearwaters, fulmars, and petrels. All members of this group have nostrils, which are enclosed in one or two tubes on their straight, hook-tipped bills. The tubes are used to excrete salt from the seawater they drink. Their wings are long and narrow, the feet are webbed, and the hind toe is not well developed or non-existent.

Fork-tailed Storm-Petrels (*Oceanodroma furcata*) are found only in the North Pacific Ocean and are most abundant in Alaska. Like other tubenoses, they are highly pelagic and spend about eight months a year at sea. In late spring, the birds return to their breeding colonies. They excavate burrows in soil or use natural rock crevices for nesting.

Several adaptations of Fork-tailed Storm-Petrels make them fascinating subjects for ecological and physiological research. They lay a single egg, which is approximately 20% of the female's body weight, one of the largest eggs relative to body size of all birds. Both eggs and chicks can withstand long absences by the parent bird. In bad weather, adults may not feed the chick for several days. The chick reduces its body temperature and goes into a state of torpor in which growth nearly ceases. When the adults return and brood the chick, its body temperature rises and it starts to grow again. These are probably adaptations for survival since the adults also spend a lot of time away from the nest looking for food.

Plumage of this species is mostly silver or bluish-gray with a dark ear patch and dark and light gray patterns on the wings. The bill is dark and the tail is, of course, forked.

The diet consists of fish, crustaceans, and floating animal oils. They skim oily fat from the surface of the water and sometimes eat carrion or other floating refuse. Oil is stored in the adult's stomach and used to feed chicks.

Two subspecies are recognized. The northerly subspecies *Oceanodroma furcata furcata* is lighter in coloration and slightly larger. It occurs in eastern Russia and across the Aleutian Islands in Alaska to Sanak Island. There are also significant breeding colonies in the northern Gulf of Alaska, which are probably this subspecies, but they have not been assigned to one or the other subspecies.



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The more southerly subspecies *Oceanodroma furcata plumbea* breeds from islands off Southeast Alaska to northern California.

Fork-tailed Storm-Petrels winter near their breeding areas with the northern limit being set by the edge of the pack ice in the Bering Sea.

### **Alaska Seasonal Distribution**

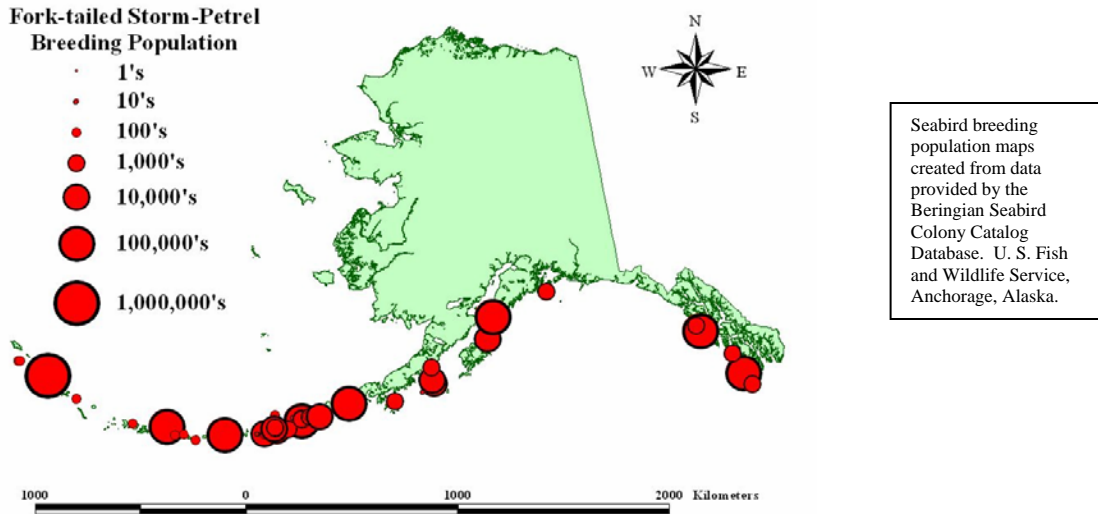
AK Region	Sp	S	F	W
Southeastern *	C	C	C	R
Southcoastal *	C	C	C	R
Southwestern *	C	C	C	R
Central	-	-	+	-
Western	-	U	U	-
Northern	-	-	-	-

C= Common, U= Uncommon, R= Rare, += Casual or accidental, - = Not known to occur, \* = Known or probable breeder, Sp= Mar-May, S= June and July, F= Aug-Nov, W= Dec-Feb. © **Armstrong 1995.**

### **Population Estimates and Trends**

The global abundance is estimated at 4 million individuals. The Alaskan breeding population includes 112 colonies with approximately 3.2 million individuals.

Global trends have been stable or increasing since the mid-1970s. In Alaska, Fork-tailed and Leach's Storm-Petrel burrows were combined at most sites for population monitoring purposes. Storm-Petrel populations increased (+3.9% per annum) on Buldir Island in the Aleutian Islands between 1974 and 2003, (+9.3% per annum) on



Aiktak Island in the Aleutian Islands between 1990 and 2002, and (+7.4% per annum) on St. Lazaria Island in Southeast Alaska between 1993 and 2001. No other Alaskan colonies exhibited significant trends.

### Conservation Concerns and Actions

Fork-tailed Storm-Petrels are so widely distributed and abundant that their populations do not seem to be in jeopardy. However, decreases in breeding populations could go unnoticed because of the difficulty in censusing populations. The nocturnal, burrow-nesting habits of this storm-petrel make it difficult to be seen and counted.

The introduction of predators is the most imminent threat to the survival of Fork-tailed Storm-Petrels on the breeding grounds. Of 18 islands in Alaska with suitable nesting habitat for Fork-tailed Storm-Petrels, the species was present only on the nine islands where foxes (*Vulpes vulpes*, *Alopex lagopus*) were absent. Rats (*Rattus spp.*) and other predators were introduced on Whaler Island in California and a colony of 20,000 Fork-tailed and Leach's Storm-Petrels was decimated.

Increased soil erosion and the collapse of nesting burrows by humans or large mammals such as bears (*Ursus spp.*) is also a conservation concern. Introduced hooved animals on some islands have also caused soil compaction and have removed vegetation, thereby increasing erosion as well. The species is particularly sensitive to human disturbance at nesting burrows and may abandon their nests if handled by humans.

Fork-tailed Storm-Petrels could be a useful indicator of ocean health since they feed over a wide area and on the surface layer where pollutants accumulate (e.g. oil, plastics). Their habit of following ships to take advantage of discarded food makes them additionally susceptible to ingesting plastic discarded by the vessels. Plastics are commonly ingested, but may not be a serious problem because they can be expelled when birds regurgitate. Because the Fork-tailed Storm-Petrel diet contains large amounts of fats that are similar to oil, this species could be less vulnerable to toxicity from ingesting oil pollution. However, long-term effects on survival and reproductive success from plastic and oil ingestion are unknown.

Lights from ocean going vessels are a great attraction and another potential danger to Fork-tailed Storm-Petrels. Birds often collide with ships and become momentarily dazed and incapable of flying away.

### Recommended Management Actions

- Restore Fork-tailed Storm-Petrel populations and distribution to pre-mammal introduction conditions.
  - Continue efforts to reduce introduced predators such as foxes and rats.
  - Re-establish populations on islands after introduced mammals are removed.
- Maintain Alaska-wide populations of at least year 2000 levels.
- Maintain a monitoring program.
- Survey populations at index locations.
- Complete a nesting inventory.
- Determine wintering locations.
- Assess and regulate human presence at nesting sites to avoid soil erosion and burrow collapse.
- Educate ship crews about light pollution and care and release of birds that come aboard.

### Regional Contact

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### References

Armstrong 1995; Boersma 2001; Dragoo *et al.* In Press; IUCN Internet Website (2005); Kushlan *et al.* 2002; Stephensen and Irons 2003; U.S. Fish and Wildlife Service 2006, 2002.

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