

F O C U S

Storm-Petrels

Rich Stallcup

THE OCEAN SURFACES of the world provide shelter and food for a large number of bird species that go to land only to propagate their kind. This is a world of harsh weather, shifting food sources, and changing currents and water temperatures, but with few predators. True seabirds are entirely dependent upon ocean water.

Many kinds of birds, including penguins, loons, grebes, pelican-like birds, some ducks, shorebirds (phalaropes), some gulls (and skuas), and auks, have successfully adapted to spending most of their lives at sea. None brings to mind mysteries of the deep or captures the awe of mariners like the procelariiformes. Of this group, which includes albatrosses, shearwaters, and fulmars, the storm-petrels are the smallest and, because of their remote ranges and mostly nocturnal activities, are some of the least known of all animals.

Many birders appreciate the truly marine species vicariously—in the pages of books, through the eyes of TV cameras on the decks of the *Calypso*, and on other arm-chair pelagic trips. Those of us living near the Pacific coast are lucky to have easy access to boat trips, some of which go specifically to observe storm-petrels. Monterey Bay is probably the best place to visit: from August through October several thousand petrels of up to seven species can usually be found within a few miles of shore. Most often the water there is rather calm, and because seabirds range close to the coast in the area, trips are only about six hours long (so human discomfort is minimized). And if you hate boats, you can still see storm-petrels from a jetty at Monterey harbor under certain fall and winter conditions (see *Viewing*, below).

Range

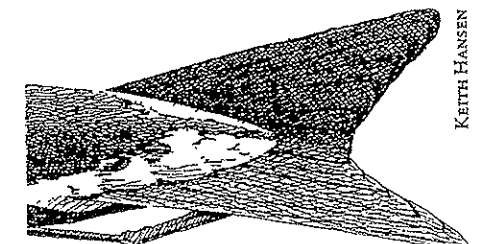
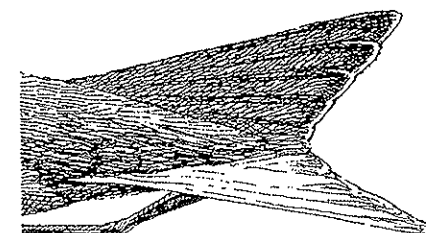
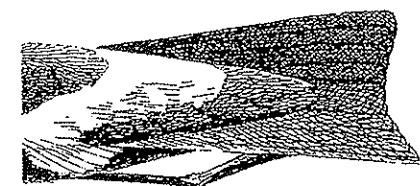
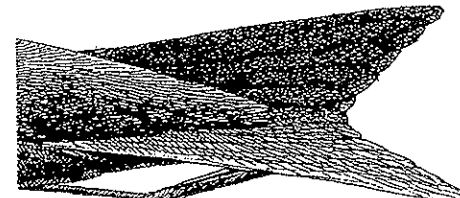
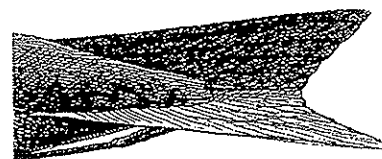
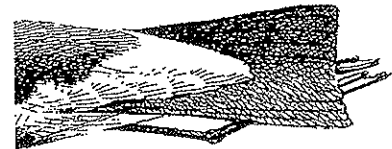
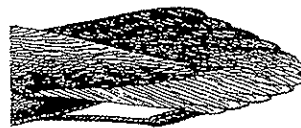
EIGHT SPECIES of storm-petrels have occurred in nearshore California waters. The four that are mostly black with white rumps are rarely seen on one-day trips. *Band-rumped* (only one record) and *Wedge-rumped* (four records) from equatorial waters are considered accidental here and not to be expected. *Wilson's* Storm-Petrel, not known to breed in the Pacific at all, is also southern but is regular here in tiny numbers, especially at Monterey where up to five have been found every fall for the last 15 years. Forty-five individuals at the Cordell Banks, Marin County, on 5 November 1985, were



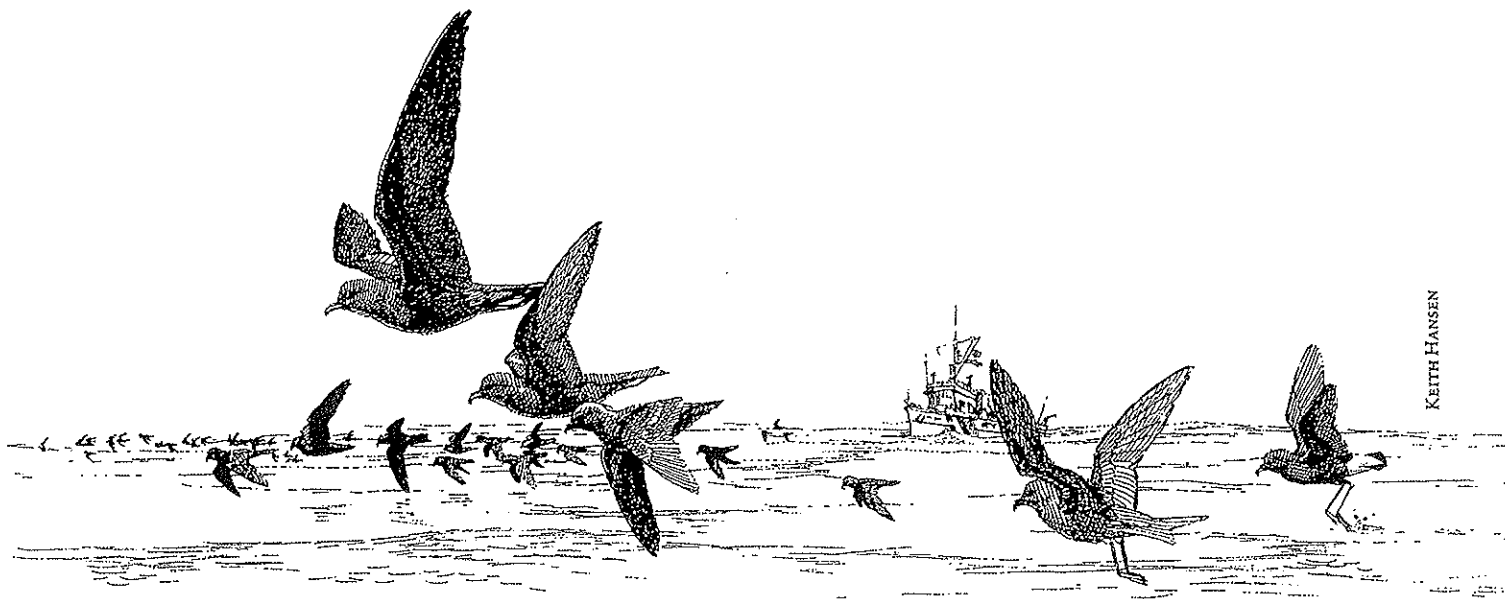
an exceptional congregation and possibly surpassed all other northeast Pacific records combined. *Leach's* breeds from southern Baja to the Aleutians, including on most California islands, but apparently prefers deep water farther offshore so is seldom seen. The best chances to see *Leach's* Storm-Petrel off California are on longer trips (yikes) to the Farallones or to Cordell Banks from Bodega Bay and on one-day outings to San Clemente Island from San Diego.

Typical rump/tail patterns for eight Pacific storm-petrels. Top to bottom, left: *Least*, *Ashy*, *Black*, *Fork-tailed*; right: *Wilson's*, *Wedge-rumped*, *Band-rumped*, *Leach's*.

The four species that do not have white rumps are generally easier to find. *Fork-tailed* Storm-Petrels breed throughout the Aleutians and south to islets off Humboldt County, California. They used to be a usual sight in Monterey Bay at almost any season, but warm water trends of the last 15 years have kept them mostly in their breeding range. Individuals are sometimes seen off Monterey and at the Cordell Banks, but they are much more common off Westport, Washington, and are abundant on the ferry trip from Kodiak Island to Seward, Alaska. *Black* and *Least* storm-petrels both breed in the Sea of Cortez and off southern Baja, with *Black* known to nest even on the Channel Islands off southern California. Both species occur in Alta California waters during the fall: *Black* is very regular and numbers in the thousands as far north as Monterey Bay; *Least* is less regular (none in 1985), always occurs in smaller numbers, but during warm-water years sometimes numbers in the hundreds as



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far north as Monterey. *Ashy* Storm-petrel is the most common and most often seen off central California, because most of its small, world population nests on the Farallon Islands off San Francisco and spends the autumn in and near Monterey Bay. (An oil spill at Moss Landing could severely threaten the entire species.)

Identification

NOTE THAT ALL of the dark species have a paler diagonal bar across the inner wing. Its strength depends upon wear, so as a field mark it is of little use.

Band-rumped (also called Harcourt's and Madeiran) is large, nine inches long, is dark charcoal, has a distinct narrow, all white rump patch, flies with deep wingstrokes followed by shearwater-like sailing, and in strong winds flies more like a bat-outta-hell with high arcing glides.

Wedge-rumped (also Galapagos) is small, six inches long, is black with a long, triangular white rump patch (actually upper tail coverts) that can appear to meet the notch in the tail tip. It flies with deep wingstrokes (like *Least*) and directly. Though it has considerable white on the sides of its rump, the undertail coverts are blacker than in *Wilson's*. One *Wedge-rumped* we observed repeatedly at Monterey showed no white while sitting on the water; *Wilson's* usually shows some.

Wilson's is medium-sized, 7-1/2 inches. It averages blacker than the others and has a very contrasty white rump, lower flanks and (on some birds) undertail coverts. Behaviorally, *Wilson's* is quite different from any of the others. It slides over the water with occasional sets of shallow wingbeats, it side-slips, it patters its feet on the water surface, and it does some low soaring. When not absorbed by the energy of a running flock, *Wilson's* doesn't mind the presence of boats and is sometimes attracted to them. It has shorter,

more rounded wings than other storm-petrels do, and it has long legs so its yellow-webbed feet stick out beyond the slightly rounded tail tip during flight.

Leach's is big, eight inches, blackish-brown, and has variable rump patterns. The rump is the same color as the rest of the plumage in birds off Mexico (and rarely southern California); in Alaska most birds' rumps are bright white, narrowly divided from rear towards front by a black bar. Mid-range birds show varying degrees of white divided by a black smudge. What doesn't vary is the birds' flight style. With very deep strokes, *Leach's* zig-zag this-way-then-that, slicing along like pelagic nighthawks.

Fork-tailed is big, eight inches, and is entirely pale gray, slightly darker above than below. A black smudge at the eye, a dark carpal bar, and a large, black rectangle formed by underwing coverts are the only dark parts. The wingbeats are shallow and the tail looks long. Because of its pallid coloration, it is more often mistaken for a phalarope than another storm-petrel (major embarrassment).

Black is big, nine inches, and really quite black. Its wingbeats while flying at ease are deep: it raises its wings high above the horizontal before the downstroke. (All storm-petrels have deep strokes when accelerating to gain flight). Flight is direct compared to *Wilson's* or *Leach's*. The tail (whose forks and notches are usually hard to see) looks long compared to *Least's*.

Least is the smallest, 5-1/2 inches long. It flies with deep wingbeats like those of a *Black* but more rapid. The rounded or wedge-shaped tail is short, giving the flying bird a front-heavy look, more bat-like than any of the others.

Ashy is medium sized, 7-1/2 inches long, and is usually browner in color than *Black* or *Least*. Also unlike *Black* or *Least*, the upstroke of its wingbeat while flying at ease

A good ship flushes storm-petrels from a day roost on Monterey Bay. The near five, left to right: *Black*, showing typically high wing stroke; *Ashy*, showing highest wingstroke used only when accelerating to take off; *Least*, showing short-tailedness; *Fork-tailed*, the pale bird; and *Wilson's*, with its rounded tail, extensive white rear end, and walk-on-the-water behavior. Due to depth, the birds should not be considered in scale.

hardly rises above the horizontal, so there is a more rowing, less cleaving impression. *Ashy's* are quite long-tailed, and the tail tip curls up when viewed from the side.

Albinos. Each year a couple of birds are seen with patches of white in otherwise dark plumage. Although storm-petrel species with black-and-white (other than rump) plumage could turn up here, so far these individuals have proven to be partially-albino *Ashy's*.

Viewing

STORM-PETRELS are often seen (or missed) as specks on the horizon. At Monterey, where as many as 10,000 are often found roosting together, boats can at least get close enough for most people to feel comfortable differentiating the wingbeat styles of *Black* and *Ashy*. Off Westport, Washington, shark liver oil poured on the water has been highly effective in bringing birds right up to the boat from great distances. During gale-force northwest winds in fall and winter, *Leach's*, *Fork-tailed*, and *Ashy* are sometimes blown to shore, and a proven place to see them up close at such times is from the U.S. Coast Guard jetty at Monterey harbor.

For information about California boat trips, you can get your name on the mailing lists of Shearwater Journeys, P.O. Box 7440, Santa Cruz CA 95061, or Pacific Adventures, P.O. Box 268, Cotati CA 94928.