

# The Great Curlew Fallout of 1998



**Bristle-thighed Curlew (*Numenius tahitiensis*) at the South Jetty of the Columbia River, Clatsop County, Oregon, May 17, 1998. An unprecedented "invasion" of this species to the Pacific Coast of the United States occurred during the spring. Photograph/ Bing Wong**

## MIKE PATTERSON \*

**O**n May 6, 1998, a note came over the Oregon Birder's On-line (OBOL) e-mail list-serve from Dave Lauten and Karen Castelain. They had seen what they believed to be a Bristle-thighed Curlew (*Numenius tahitiensis*) at Floras Lake near New River, Curry County, Oregon.

This identification had been made after the fact. During the initial observation, Dave had considered the possibility of Bristle-thighed Curlew, but had kept it to himself. Later in the day he suggested to Karen that what they had seen was not a Whimbrel (*Numenius phaeopus*). After studying several references, they finally came to

their conclusions and made the report. Dave and Karen had a good deal of experience with shorebirds and were working on the censusing of Snowy Plovers (*Charadrius alexandrinus*), but they were not well known in the Oregon birding community aside from being regular contributors to OBOL. The bird they saw was well described, but no photographs were taken and the bird could not be relocated the next day.

There were plenty of reasons to doubt such a call. There had been only one unequivocally accepted record of Bristle-thighed Curlew for the Pacific Coast south of Alaska, a bird seen at Grant Bay, British Columbia, on May 30–31, 1969 (Paulson 1993). Photos of an Oregon record of two birds on September 16, 1981, had been rejected by the Oregon Birds Record Committee, because the possibility for Whimbrel could not be eliminated. This record had been reconsid-

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A first record for California was provided by this Bristle-thighed Curlew at Crescent City, Del Norte County, photographed on May 16, 1998. Bold buff spots on the edges of the scapulars, coverts, and tertials all contribute to the brightly "spangled" or "checkered" look of the upperparts—among the better field marks to separate a silent, standing bird from the very similar Whimbrel. Photograph/ Don Roberson



Past publications have emphasized that the bristles on the thighs do not present a useful field mark for this species. However, at times the bristles were quite noticeable on the birds seen this spring, such as this bird at the South Jetty of the Columbia River, Oregon, on May 17, 1998. Photograph/ Bing Wong



At Yaquina Bay, Lincoln County, Oregon, photos indicated there were two Bristle-thighed Curlews present, although they apparently were not seen at the same time. This one was photographed on May 14, 1998. Bill color varied considerably among the individuals seen this spring, and sparked much discussion. Adults in full breeding condition are thought to have solidly black bills, and young birds are thought to remain on the wintering grounds through the summer, but some birds from this season's fallout had substantial amounts of pink on the bill. Photograph/ Eric Horvath



Several observers noted that the pattern of the underparts of the Bristle-thighed Curlews suggested a Pectoral Sandpiper, with a sharp cutoff between the heavily streaked breast and the unmarked center of the belly. This bird, photographed on May 13, 1998, was one of at least three believed to be present at Ocean Shores, Grays Harbor County, Washington. Photograph/ Patrick Sullivan

By far the most reliable mark for separating Bristle-thighed Curlews from Whimbrels proved to be the orange-buff, or "peachy," rump and tail color of the Bristle-thigheds.

The birds often drooped their wings slightly, exposing this color, as on this individual at the South Jetty of the Columbia River, Oregon, on May 11, 1998.

Photograph/ Ruth Sullivan





Harry Nehls, a former regional editor for *Field Notes*, documented the presence of three separate Bristle-thighed Curlews at the South Jetty of the Columbia River, Oregon, on May 9, 1998. These three photos show three individuals present on that date. Nehls noted that the birds were more readily separated by the structure and color of the bill than by any plumage characteristics; but as seen here, the plumage also showed some differences. Shorebird expert Dennis Paulson has pointed out that Bristle-thighed Curlew seems to show a surprising amount of individual variation in plumage. Photographs/ Harry B. Nehls



Two Bristle-thighed Curlews together at the South Jetty of the Columbia River, Oregon, on May 11, 1998. These two give a graphic demonstration of some of the variation in bill shape shown by this species. Photograph/ Ruth Sullivan

The usual suspect: this is not a Bristle-thighed Curlew but a Whimbrel, the expected mid-sized curlew on the Pacific Coast. The two species are so similar (and so variable) that identification of the rare Bristle-thighed must always be confirmed by rump color and voice. This Whimbrel was at Nehalem Bay, Oregon, in August 1992. Photograph/ Harry B. Nehls



The Bristle-thighed Curlews at the South Jetty of the Columbia River, Oregon, often allowed close studies—showing every detail, as in this portrait of a stretching bird, taken on May 17, 1998. The orange-buff color of the rump and tail can be seen above the lowered near wing. Photograph/ Bing Wong

# BRISTLE-THIGHED CURLEW

ered at a later date and accepted as a sight record only, according to Oregon's two-tiered records classification (Schmidt 1989). Five other records, three from the spring and two from the fall, existed for Washington and British Columbia, but none of these satisfactorily eliminated Whimbrel (Paulson 1993).

Even on their breeding grounds in Alaska, Bristle-thighed Curlews present something of a mystery. The entire population is thought to be about 3200 pairs (Rosair and Cottridge 1995). The extent of their breeding grounds is not completely known but is centered around montane tundra in small areas of the central Seward Peninsula and near the mouth of the Yukon River in western Alaska. The first nests were not discovered until 1948 (Allen and Kyllingstad 1949). Recent studies have shed some light on their breeding biology, but the size of the population and many aspects of their migratory and wintering habits are still poorly defined.

## CONFIRMATION OF AN INDIRECT SORT

On May 8, two Bristle-thighed Curlews were reported near the Point Brown Jetty at Ocean Shores, Grays Harbor County, Washington, by Bob Sundstrom and Hal Opperman. The birds were first heard calling, they circled the observers and were well seen. The identification was made in the field, and the observers were well known to birders in both Oregon and Washington. The natural assumption was that these were probably the New River birds (even though only one individual had been seen at New River) and that they had moved up the coast

On May 9 at about 5:10 p.m., I received a phone call from Harry Nehls. He had just seen two Bristle-thighed Curlews at the South Jetty of the Columbia River (SJCR), Clatsop County, Oregon. This location is about 200 miles north of New River and 50 miles south of Ocean Shores. This meant there were at least four, possibly five, curlews on the coast. I live in Astoria, 25 minutes and a local phone call away from the South Jetty. I put the word out on the Internet and the local Rare Bird Alert telephone network and then rushed out to see the birds.

I arrived at the shorebird flats, a tidal wetlands that borders the SJCR, at 5:40 p.m. I met Harry and was told that a particularly raucous group of tourists had just frightened the birds off the flats. They had last been seen flying south toward the beach. We set off in that direction and relocated the birds about half a mile to the south, working the high tide drift line of Clatsop Beach. To me, they looked like bright, golden Whimbrels. We watched as they began to climb the dune scarp, which was just short of being vertical. This was the first of many distinctly un-Whimbrel-like behaviors we would see over the next 12 days. The birds finally took off, flying east, calling several times, making the characteristic *ker-a-whit* "wolf whistle" described in the field guides.

Harry and I arrived back at the South Jetty parking lot and quickly spotted a single curlew in the middle of the flats. It was a Bristle-thighed Curlew, and we spent the next twenty minutes photographing and sketching this bird as it fed, oblivious to us. This bird seemed larger, paler, and more strongly marked than the two we had seen on the beach. We began to speculate that there might be three curlews in the area.

On May 13, a Bristle-thighed Curlew was reported from Yaquina Bay, Lincoln County, Oregon. Photographs of birds taken over the next several days indicated that there were two birds in the area. Two birds were discovered up the beach from the original Ocean Shores report and were presumed to be the same individuals. By May 14, a curlew was discovered at Crescent City, Del Norte County, California, and two days later, another bird was found on Kehoe Beach at

Point Reyes, Marin County, California. These represented the first Bristle-thighed Curlews ever reported for that state. What had started out as a single report, questionable to some, was now a major fall-out. The new question was: Why was this happening?

## EL NIÑO

A very large low-pressure system developed off the coast of southern Oregon beginning in late April. It stalled there, pulling in warm, wet air off the Pacific Ocean. A look at the weather satellites showed the flow of air coming at the west coast from Hawaii.

Bristle-thighed Curlews winter on the islands of Polynesia. Beginning in late April, they make a non-stop flight from their winter home, over 5000 km of ocean, to their breeding grounds in western Alaska (McCaffery and Gill 1992). Their flight path takes them over Hawaii and, this year, right into the strong westerlies associated with the stalled low pressure system off the coast of southern Oregon. The system eventually broke up, but west to northwest winds persisted through to May 21.

Other trans-Pacific migrants were reported in higher than average numbers, as well. Numerous Pacific Golden-Plovers (*Pluvialis fulva*) were reported throughout May. They are expected in the fall, but most spring reports of birds in this complex are typically of American Golden-Plovers (*Pluvialis dominica*). A well-described *variegatus*-type Whimbrel (i.e., a bird of the eastern Siberian breeding race) was seen at Ocean Shores, and a possible Gray-tailed Tattler (*Heteroscelus brevipes*) was reported from Point Reyes, California.

The apparent cause of this weather anomaly? El Niño. The weather pattern seen in the Pacific Ocean was generated by the warm ocean effects of this event. Most birders on the Oregon and Washington coast had been hoping that El Niño would bring in strange birds, but the expectation was for southern alcids, frigatebirds, or maybe a Black-vented Shearwater. Bristle-thighed Curlew was not on the list. In retrospect, maybe it should have been. At least four of the previous reports of this species were in El Niño years.

## SO HOW MANY WERE THERE?

In the days that followed, there were never more than two (or possibly three) birds seen at the South Jetty flats at any one time, though Harry Nehls saw five flying north over the flats on May 14 while he had two birds on the ground. Based on the many photographs that were taken, it appears that as many as four individual birds could have been at the South Jetty of the Columbia. The consensus among those who were able to study the birds seen at Ocean Shores is that there were at least three birds there. A bird observed on May 18 at Westport, Washington, across Grays Harbor to the south, may have been a different individual, although it was seen on days when the Ocean Shores birds were not seen. Photographs confirm two birds at Yaquina Bay. The bird originally seen at the New River may or may not have been the same individual seen 10 days later.

The conservative number of curlews seen between Point Reyes and Ocean Shores would be 15 individuals. This is the number that can be reasonably determined from ground reports and photographs. However, if one is inclined to accept the descriptive accounts of observers, there is good reason to believe that as many as 22 birds may have been observed. There is plenty of habitat along the Pacific Coast that went unchecked, so the true size of the fallout may have been much larger.

## NOW WE'RE ALL EXPERTS

Contrary to what many references claim, it is possible to see the bristles on a Bristle-thighed Curlew. They were reported as being fairly

easy to see on nearly all of the well-studied individuals. The degree to which the bristles were visible depended in large part on the background. The dark green of the Salicornia or the slate color of the basalt rocks that make up the South Jetty were particularly effective.

The diagnostic field mark was the bright unmarked rump. The color was variously described as orange, cinnamon, and pink, but I think the most useful descriptor was “peachy.” The rump and tail background colors were very close to the same value. Rich-brown barring on the tail gave the impression, especially in flight, that the tail was darker. An apparent difference between Whimbrels and Bristle-thighs was the tendency for the latter to flash their tail and rump at regular intervals. The habit of drooping the wings so that the primaries set below the tail, exposing at least part of the tail, is seen in many of the available photographs of curlews taken over the period. The Whimbrels present at the South Jetty had the frustrating habit of holding the primaries up over the tail, hiding the rump and creating some confusion during the last days of the fallout.

Other characteristics distinguished the two species. On Bristle-thighed Curlew, the streaking on the neck and breast ended abruptly as it would on a Pectoral Sandpiper (*Calidris melanotos*). The lower breast and belly of the Bristle-thighed Curlews were a clear and creamy peach color with a few wide brown bars along the flanks that were usually covered by the wings. In contrast, the streaking on Whimbrels is smudgy and continues down the sides. The wing coverts on the Bristle-thighs had dark-brown centers and bright, wide, buffy fringes and spots, giving the birds a golden-plover spangle that was positively radiant when the birds were in full sun. The coverts of Whimbrels show dark centers set off by narrow cream-colored fringes, giving them a stringy appearance.

There was much debate over the structural differences between Whimbrels and Bristle-thighed Curlews. Harry Nehls noted that the exposed tibia to tarsus ratio in Bristle-thighs was smaller than in Whimbrel. Most of the photographs seem to support this. The exposed tibia is approximately equal in length to the tarsus in Whimbrels, but the tibia appears noticeably shorter in Bristle-thighs. This may be an artifact of the feather extension down the tibia in Bristle-thighs, since measurements of tibia and tarsus bones in skeletal specimens suggest that Bristle-thighs should actually have a greater tibia-tarsus ratio (Garrett 1998).

The birds were all presumably adults (i.e., after second year). Second-year birds are believed to remain on the wintering grounds at least through the first summer (del Hoyo et al. 1996). Females tend to average larger in size than males, as is true with most shorebirds. Females also have longer bills than males. It was possible to say with some confidence that the bird seen at Crescent City and at least one of the three birds that were photographed at the South Jetty were males. At least one of the two Yaquina Bay birds was a female. In fact, the bill on this bird was so long that, if it were not for the strong head pattern on this bird, one might have been tempted to call it a Long-billed Curlew. There also seemed to be a relationship between bill length and bill color. Longer billed birds also tended to have more pink at the base of the bill and browner bill color overall. Shorter billed birds tended toward dark brown to blackish bill color with no pink at the base.

Alvaro Jaramillo (21 May 1998) measured study skins of birds at the Museum of Vertebrate Zoology in Berkeley and found no statistically significant differences in bill measurements between Bristle-thighed Curlews and Whimbrels, except possibly the bill depth of males. Kimball Garrett (21 May 1998) measured skins and skeletons from the Natural History Museum of Los Angeles County and found no significant differences between the two species, either. In the

absence of statistical evidence, the many structural observations made in an attempt to sort out Whimbrels and Bristle-thighed Curlews may have been wishful thinking or at least heavily dependent on posture and behavior of live birds.

There were some valid behavioral distinctions. The curlews at all sites were so tame that it was possible to approach to within 5 or 6 meters. They spent their time in the higher areas and avoided areas where they would get their feet wet. They searched for food by poking through high-tide drift, tipping the head sideways and using the bill as a pry bar rather than a probe. The South Jetty birds focused their attention primarily on catching Purple Shore Crabs (*Hemigrapsus nudus*) and Striped Shore Crabs (*Pachygrapsus crassipes*) which are abundant in the area. These crabs can often be found scuttling about on the open sand but generally stay in the tide pools or hide in the rocks of the jetty.

The technique used by curlews to capture crabs was to pull them out of the spaces between the rocks of the jetty and fling them about with a twist of the head until the legs came off. The dismembered parts of the carapace were usually eaten first, then the legs that had been scattered were cleaned up afterward. The crab-tossing show put on by the South Jetty curlews was fascinating and often elicited cheers from the gallery of birders.

The Kehoe Beach bird was the only bird that closely associated with Whimbrels as it fed. It would pull Pacific Mole Crabs (*Emerita analoga*) out of the sand along the beach and eat the eggs that were attached to the crab's abdomen. It apparently was interested only in the eggs and usually left the crabs uneaten (Jaramillo, 19 May 1998). The first Yaquina Bay bird was originally discovered gleaning insects from the grassy margin of a parking lot, and one of the Ocean Shores birds was regularly seen feeding in the lawn of one of the nearby homes.

The strangest behaviors were reported from the bird seen at Crescent City. Joe Morlan described it “creeping around like a rail” It chose a bare lot with grass and willows, well away from the expected Whimbrel hangouts, where it ate insects. This bird also showed the most obvious signs of stress, drooping one wing and limping (Morlan, 16 May 1998).

By comparison, the Whimbrels that were using the South Jetty at the same time actively waded into the tide pools. They probed into the mud in the manner of dowitchers (*Limnodromus* sp.). If they caught crabs, these tended to be much smaller and were eaten on the spot without any preparatory tossing. When searching for food in the salt grass and Salicornia, they would probe and scratch with an upright posture. If they did any prying, it was in a head-forward fashion.

During the first several days after their arrival, the curlews seemed to be eating continuously. This was consistent with the prevailing theory that the storm had seriously taxed their fat reserves and that they were putting their time to good use during the spell of uncooperative weather. The South Jetty birds set up well-defined feeding territories. The smaller of the two well-seen birds defended a strip of jetty by chasing away the other curlew and any Whimbrels in the area.

## THE PARTY'S OVER

On the morning of the 21st the wind changed to south-southwest after nearly 3 weeks of westerlies. A single bird with a “pink” rump was seen up to 10:30 a.m. at the South Jetty that morning. A search from 2 to 5 p.m. that day failed to turn up any Bristle-thighs. A crab-eating Whimbrel was temporarily mistaken for a Bristle-thighed Curlew on the 22nd, but the identification was quickly corrected

## BRISTLE-THIGHED CURLEW



**The Bristle-thighed Curlews at the South Jetty of the Columbia River, Oregon—such as this bird, captured in action on May 17, 1998—spent much of their time hunting crabs and then actively dismembering them, as described in the text. Photograph/Bing Wong**

when the bird flew. A curlew discovered at Bandon Marsh on the 20th remained until the 25th, as did the birds at Point Reyes and Ocean Shores. Birds reported after the 25th were almost certainly misidentified Whimbrels.

About 250 people came out to the South Jetty of the Columbia River to see the curlews during their 13-day stay. They spent around \$6,000 in Clatsop County on food, gas, and other things (this based on an internet survey I conducted of those who chased the birds). Only the few who tried after the 21st left without seeing at least one of the curlews. The economic impact of the fallout on the other coastal communities that hosted birds was probably also significant.

The 1997–1998 El Niño has wound down. The ocean temperatures are falling back to normal, and the media has now latched on to La Niña and the colder oceans it brings. The background of expected shorebird migrations ended right on schedule with only a few summer stragglers.

It seems unlikely that the right combination of weather anomalies and migration timing will occur anytime again in the near future. And while we can probably expect the occasional Bristle-thighed Curlew to drop in somewhere along the Pacific Coast from time to time, a phenomenon like the Great Curlew Fallout of 1998 was probably a once-in-a-lifetime event.

### ACKNOWLEDGMENTS

Tracking the Great Curlew Fallout was a cooperative effort, and many people in British Columbia, Washington, Oregon, and California were kind enough to provide me with observations, photographs, and reference material. Their contributions to the Bristle-thighed Curlew web pages led to this article. I would also like to thank all the folks who took the time to fill out the Internet survey on economic impacts. Joe Morlan kept track of

all the curlew action in California, keeping me posted on a very regular basis. Harry Nehls provided his unique insight and experience, pointing out many structural and behavioral difference that went beyond the available resource material. Bob Taylor was kind enough to send me what turned out to be one of the most up-to-date references on Bristle-thighed Curlews available.

Most importantly, I thank Dave Lauten and Karen Castelein for the time they spend in the field paying attention to things. It was their initial report which got the rest of us checking those Whimbrels.

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# Dry Tortugas

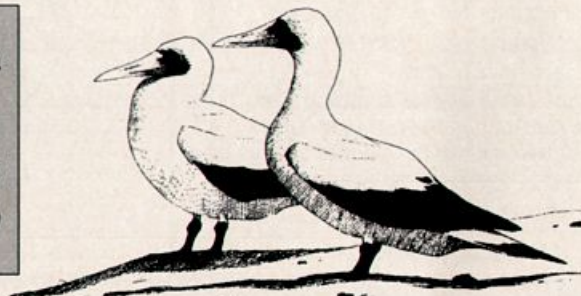
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