

## FIRST RECORD OF NEWELL'S SHEARWATER FROM THE MAINLAND OF NORTH AMERICA

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**ABSTRACT:** A Newell's Shearwater (*Puffinus [auricularis] newelli*) captured alive on land at Del Mar, California, on 1 August 2007 was the first of its species to reach the continent of North America or a latitude so far north. The bird was distinguished from the similar Manx (*P. puffinus*) and Townsend's (*P. [a.] auricularis*) Shearwaters by the pattern of its undertail coverts, white basally and black distally, as well as tail length and weight. An attempt to rehabilitate it was unsuccessful, and it died after 10 months in captivity.

### OCCURRENCE IN CALIFORNIA

Around 03:00 on 1 August 2007 Swanson was with a crew working on the stabilization of the sea bluffs along the railroad tracks at Del Mar, San Diego County, California, when he noticed a bird dive-bombing a co-worker. Suspecting the bird was attracted by the light from the headlamp on his co-worker's hardhat, Swanson suggested he turn the light off. He did so, but the bird continued to dive at him. The co-worker walked toward a large metal box as the bird again flew toward his head. He ducked, and the bird crashed into the box and fell to the ground. Thinking the bird was probably stunned or possibly hurt, Swanson picked it up carefully, finding it docile, and placed it in a bed of iceplant along the cliff. Some time passed, and the bird took flight, circled for a few rounds, and came back to the same area. Swanson's shift ended around 05:30, and he left the bird in the iceplant.

The following night, still 1 August, Swanson returned to work at 21:30, about 14 hours since the first encounter with the bird. At this time it was by the same metal box with which it had collided the preceding night, sitting as quietly as it had been when he left it earlier in the morning. Although the bird was not seriously injured Swanson suspected it needed medical attention and placed it in a box with some soft rags. It remained calm in the box through the night as Swanson checked on it periodically. When his shift ended at 05:30 on 2 August, he took the bird home, offering it water and three pieces of soaked bread, two of which it ate. Swanson's friend Dewilla Goldate called the San Diego Wild Animal Park, which referred her to Sea World, which referred her to Project Wildlife's care center in Carlsbad. Swanson and Goldate took the bird to this center, where volunteers identified it as a Manx Shearwater (*Puffinus puffinus*) and transferred it to Faulkner, Project Wildlife's seabird specialist. On 3 August Faulkner brought the live shearwater to the San Diego Natural History Museum, where Unitt identified it as a Newell's Shearwater (*Puffinus [auricularis] newelli*) on the basis of the pattern of its undertail coverts: white basally, black distally. He measured it and pulled three undertail coverts for preservation of some

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physical evidence. Dana Hogan took several photographs, and Faulkner returned the bird to her home care center.

With the assistance of Timothy Burr, we notified the authorities in Hawaii responsible for the management of this species, formally designated as threatened by the U.S. Fish and Wildlife Service. They recommended that the bird be released on the ocean near San Diego, believing this less stressful and risky for bird than sending by airplane to Hawaii (Holly Freifeld, U.S. Fish and Wildlife Service, in litt.). This decision also obviated the question of whether the bird would need quarantine if returned to Hawaii. Therefore Faulkner kept the bird under her care at her home rehabilitation center in preparation for a possible release. In captivity the Newell's Shearwater vocalized occasionally but usually remained passive in its behavior. On a daily basis it was given the opportunity to swim in a freshwater pool, where it bathed for a very short time then climbed out. Unlike other shearwaters and fulmars brought in for rehabilitation, the bird never showed a desire to remain in the water for more than a minute. Fed fish twice daily, it usually expressed a desire for food by climbing the side of its enclosure and engaging in brief wing flapping. On one occasion it climbed out of its enclosure and hid under the base of a hedge of Natal Plum (*Carissa grandiflora*), where it dug out a depression or cavity in the roots. The bird never made any attempt at flying even when launched gently in windy conditions over the pool in Faulkner's yard.

The shearwater's call in captivity (usually heard when the bird was handled or moved) was a two-noted donkeylike bray sometimes repeated up to three times. It sounded identical to the call recorded in the field and published in *Voices of Hawaii's Birds* (Pratt 1995).

A few days prior to death on 31 May 2008, it showed less interest in swallowing fish (it was gently force-fed since it refused to pick up fish from water or a surface) but otherwise showed no obvious signs of illness. Its weight remained stable during the whole time in captivity, varying from 370 to 400 g.

## IDENTIFICATION

Basically black above and white below, the bird was small for a shearwater, weighing 383 grams when received by Project Wildlife. At this time the plumage was in good condition, rather fresh, with no evident molt. The upperparts were entirely sooty black, the black extending a short distance below the eye (Figure 1). The black covered the cheeks and sides of the neck, and the line between black and white turned up abruptly to meet the forward base of the wing (Figure 2). The throat, breast, and belly were pure white. The underwing coverts were white with a sharp black leading edge and some black mottling over the patagium (Figure 3). The flanks were white except that four of the longest flank feathers were largely black (Figure 4). The anterior half of the undertail coverts was largely white, the posterior half largely black, the line between black and white making the shape of the letter U (Figure 5). Some feathers near the line of division were largely white on the inner web and black on the outer web. The irides were very dark brown, almost black. The bill was black. The tarsi and feet were bluish

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Figure 1. Head of Newell's Shearwater picked up at Del Mar, San Diego County, California, 2 August 2007 (photo taken 5 August 2007).

*Photo by Matt Sadowski*

to lavender, pinker on the webs, with black outer edges on both the tarsi and lateral toes.

The pattern of the undertail coverts is the primary feature distinguishing Newell's Shearwater from the similar Manx and Townsend's (*P. [a.] auricularis*) Shearwaters (Howell et al. 1994). In the Manx the undertail coverts are entirely or almost entirely white. In the single specimen of the Manx in the



Figure 2. Side view of Newell's Shearwater picked up at Del Mar, San Diego County, California, 2 August 2007 (photo taken 3 August 2007).

*Photo by Dana Hogan*

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Figure 3. Underwing of Newell's Shearwater picked up at Del Mar, San Diego County, California, 2 August 2007 (photo taken 3 August 2007).

*Photo by Dana Hogan*

San Diego Natural History Museum the longest undertail coverts are white with slight black speckling and only a few of the lateral undertail coverts have significant black, mainly on their outer webs. In Townsend's the undertail coverts are entirely or almost entirely black. The pattern on the bird picked up at Del Mar resembles that of two specimens of Newell's Shearwater collected on Kauai, also in the San Diego Natural History Museum.



Figure 4. Flanks of Newell's Shearwater picked up at Del Mar, San Diego County, California, 2 August 2007 (photo taken 3 August 2007).

*Photo by Dana Hogan*



Figure 5. Undertail coverts of Newell's Shearwater picked up at Del Mar, San Diego County, California, 2 August 2007 (photo taken 3 August 2007).

*Photo by Dana Hogan*

When the bird from Del Mar was brought to Faulkner, its wing chord measured 232 mm, its tail (from insertion of central rectrices to their tip) 87 mm, tarsus 45 mm, exposed culmen 33.2 mm, bill depth at base 12.2 mm, and bill width at gape 14.5 mm. The measurements for the wing, tail, tarsus, and culmen are all well within the range for Newell's Shearwater given by King and Gould (1967) and republished by Ainley et al. (1997). The tail is too long for Townsend's, in which the tail ranges from 71 to 83 mm (Howell et al. 1994), and Manx, in which the tail ranges from 68 to 83 mm (Howell et al. 1994, Lee and Haney 1996: appendix 2). Also, at 383 grams the bird from Del Mar was near the average for Newell's Shearwater (381 grams, Ainley et al. 1997; 391.2 grams, King and Gould 1967). This figure is high for Townsend's Shearwater, 10 specimens of which Jehl (1982) weighed at 290 to 358 grams. In the latest (1998) A. O. U. *Check-list of North American Birds*, Newell's and Townsend's Shearwaters are classified as conspecific.

The Black-vented Shearwater (*P. opisthomelas*) is a common nonbreeding visitor off southern California but eliminated by its wholly black undertail coverts, shorter tail, and softer contrast between the dark upperparts and pale underparts. Other small shearwaters from distant parts of the globe, namely, the Audubon's (*P. lherminieri*), Little (*P. assimilis*), Fluttering (*P. gavia*), Hutton's (*P. huttoni*), Yelkouan (*P. yelkouan*), and Balearic (*P. mauretanicus*), can be eliminated by their paler upperparts, darker underparts, dark undertail coverts, or smaller size. On the basis of the mitochondrial gene cytochrome

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b Austin et al. (2004) reported *Puffinus assimilis myrtae*, known only from the island of Rapa in the Iles Australes of French Polynesia, as a close relative of Newell's Shearwater, though possibly of hybrid origin. Since then *myrtae* has sometimes been considered a subspecies of *newelli* (e.g., [www.manu.pf/E\\_RAPA.html](http://www.manu.pf/E_RAPA.html)). However *myrtae* is classified, it differs from *newelli* in many respects, having white edges on the feathers of the upperparts, at least in fresh plumage, white inner vanes on the primaries, all-white undertail coverts, and white extending farther up face, to the level of the eye (see photo at [www.manu.pf/E\\_Marins.html](http://www.manu.pf/E_Marins.html)). It is also smaller. In the single specimen on which Bourne (1959) based the original description of *myrtae*, the wing (196 mm), tarsus (40 mm), and culmen (25 mm) are all well below the minimum of the ranges for *newelli* reported by King and Gould (1967). Steve N. G. Howell (pers. comm.) has examined the type specimen of *myrtae* and reports that in plumage it resembles the Little Shearwater.

When dissected, the Newell's Shearwater from Del Mar proved to be an adult female, ovary 12 × 5 mm, largest ovum 1.5 mm. At the time of its death on 31 May 2008 it was nearing the end of primary molt, with p9 growing. There was little molt in the rest of the plumage. Unitt prepared it as a skin and partial skeleton with the bones of the left wing and foot saved with the skeleton and the left wing partially extended. Unfortunately, the tail and undertail coverts became severely worn while the bird was in captivity, so that the diagnostic pattern of the undertail coverts is almost obliterated, and the tip of the maxilla also wore off. The specimen is catalog number 52126 in the San Diego Natural History Museum, and a tissue sample is archived at San Diego State University.

The identification was accepted unanimously by the California Bird Records Committee as record 2007-156 (G. McCaskie pers. comm.).

## DISTRIBUTIONAL CONTEXT

Newell's Shearwater nests only in the Hawaiian Islands, primarily on Kauai. Its pelagic range lies primarily in the Equatorial Countercurrent, between 4° and 10° N. It occurs mainly between 160° and 120° W, but small numbers range east to 106° W, well to the east of the longitude of California (Spear et al. 1995). Only small numbers range much to the north of Kauai, to about 25° N (Ainley et al. 1997) or about 28° N (R. H. Day pers. comm.; south of Midway Atoll, R. L. Pyle and P. Pyle, unpubl. data). The species has been collected or photographed as far west as Guam (Drahos 1977) and Saipan (Jouanin 1956) in the Mariana Islands. It has been collected as far south as Tutuila, American Samoa (Grant et al. 1993), and Dargaville Beach, New Zealand (Taylor 1996). There are no previous records of Newell's Shearwater for the coast of North America or as far north as the latitude of Del Mar (32.95° N).

Threats to Newell's Shearwater include predation by feral cats and introduced Barn Owls (*Tyto alba*), collision with wires and other man-made hazards, and disorientation by artificial lighting at night (Ainley et al. 1997). On the basis of censuses at sea Spear et al. (1995) estimated the total population between 57,000 and 115,000. From 1993 to 2001, Day et al (2003) reported a decline of 61.5% on the basis of radar detections and

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of 72% on the basis of numbers of fledglings picked up after mishaps. Typhoon Iniki in 1992 may have killed many nestlings (Day et al. 2003). In its extremely rugged, forested nesting habitat Newell's Shearwater is impossible to census accurately.

The Manx Shearwater has occurred in the northeastern Pacific Ocean as a vagrant and possible colonist with increasing frequency since at least 1992, probably since 1975 (Kessel and Gibson 1975, Mlodinow 2004, Hamilton et al. 2007). The California Bird Records Committee had accepted 117 records through 2007 (G. McCaskie pers. comm.). This occurrence of Newell's Shearwater in southern California suggests that identifications of the Manx in this area, many of which "are supported by scant details" (Hamilton et al. 2007:103), need continued vigilance.

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