

## CARCASS SCAVENGING BY A BLACK-NECKED STILT AT THE SALTON SEA, CALIFORNIA

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The Black-necked Stilt (*Himantopus mexicanus*) is common at the Salton Sea year round with its abundance peaking annually during fall (Shuford et al. 2004). Several thousand stilts winter at the sea, with many remaining to nest in the variety of habitats surrounding the perimeter of this hypersaline lake (Patten et al. 2003). It is in highly productive habitats such as those found at the Salton Sea that they find their preferred invertebrate prey (Robinson et al. 1999).

On 24 January 2007, while conducting a survey of birds at a set of experimental saline ponds adjacent to the southeastern shore of the Salton Sea, I observed a female Black-necked Stilt scavenging the remains of a Ruddy Duck (*Oxyura jamaicensis*). The carcass appeared to be one to two days old. Organ tissue was still intact within the body cavity, but the breast muscle had been stripped away. Details of the event are as follows.

At 1315 hr, using a 20–60× spotting scope, I observed the stilt as it foraged at the shoreline for water boatmen (Corixidae) in one of the experimental ponds. The stilt stopped 30 meters from my location as it encountered the partially submerged duck carcass and initially appeared to be searching for invertebrates. After a few probes around the carcass, her bill emerged from the water holding a large chunk of tissue measuring approximately 2.5 cm × 2.5 cm × 0.5 cm. She manipulated the piece of tissue with her bill by repeatedly dropping and retrieving it. She continued this manipulation for about a minute until the scrap was abandoned. She probed the carcass a few more times before grasping another piece of tissue and violently jerked her head up and to the right (Figure 1A). This piece did not come loose immediately, and another attempt, in similar fashion, was necessary before the flesh was torn free (Figure 1B). It was a smaller piece than the first (approximately 0.5 cm × 1.5 cm × 0.5 cm) and was handled in the same way, except this time it was eventually consumed. She then removed and ate another portion before flying out of view. The entire foraging bout lasted about 3 minutes; I captured it with a digital camera by using the spotting scope as a telephoto lens.

Reduced availability of invertebrates likely contributed to this stilt's shifting to scavenging, as Nettlehip (2000) also suggested for scavenging by the Ruddy Turnstone (*Arenaria interpres*). Although no quantitative information regarding the density of aquatic invertebrates at the site at this time is available, the region had just experienced weather cooler than normal. This cold spell may have further reduced prey availability already depressed during the winter months. Visual inspection of the water that day revealed that water boatmen were sparse, and during my observations I noticed a low number of prey encounters as the stilt foraged. In his extensive study of recurvirostrid behavior, Hamilton (1975) discussed no scavenging behavior associated with the Black-necked Stilt, though his studies were conducted in an environment rich in invertebrates. If scavenging is indeed limited only to times of low food resources it may not have been observed by Hamilton.

Facultative scavenging, like that I observed, is generally more common than reported in the literature (DeVault et al. 2003), although this is the first case documented for the Black-necked Stilt. This opportunistic foraging is significant from an adaptive viewpoint and has been reported among diverse species. Other "nonscavenging" birds such as the Pileated Woodpecker (*Dryocopus pileatus*, Servin et al. 2001), Ring-necked Pheasant (*Phasianus colchicus*, Knox and Buckland 1983), Great Tit (*Parus major*, Selva et al. 2005), and even a Red Phalarope (*Phalaropus fulicaria*,

NOTES



Figure 1. Black-necked Stilt removing (A) and manipulating (B) tissue from a carcass of a Ruddy Duck, Salton Sea, California, 24 January 2007.

*Photos by Thomas W. Anderson*

## NOTES

Wander 1981) have also been observed scavenging carrion. Like the bills of these other species, that of the stilt is not ideally suited for this type of foraging. However, even with a bill so evolved for precision pecking and snatching of invertebrate prey the stilt retains the capability to exploit uncommon resources, especially when more typical prey may be less abundant.

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## LITERATURE CITED

- DeVault, T. L., Rhodes, O. E., and Shivik, J. A. 2003. Scavenging by vertebrates: Behavioral, ecological, and evolutionary perspectives on an important energy transfer pathway in terrestrial ecosystems. *Oikos* 102:225.
- Hamilton, R. B. 1975. Comparative behavior of the American Avocet and the Black-necked Stilt (Recurvirostridae). *Ornithol. Monogr.* 17.
- Knox, A. G., and Buckland, S. T. 1983. Pheasant eating carrion. *Br. Birds* 76:312.
- Patten, M. A., McCaskie, G., and Unitt, P. 2003. *Birds of the Salton Sea: Status, Biogeography, and Ecology*. Univ. of Calif. Press, Berkeley.
- Nettleship, D. N. 2000. Ruddy Turnstone (*Arenaria interpres*), in *The Birds of North America* (A. Poole and F. Gill, eds.), no. 537. *Birds N. Am.*, Philadelphia.
- Robinson, J. A., Reed, J. M., Skorupa, J. P., and Oring, L. W. 1999. Black-necked Stilt (*Himantopus mexicanus*), in *The Birds of North America* (A. Poole and F. Gill, eds.), no. 449. *Acad. Nat. Sci.*, Philadelphia.
- Selva, N., Jędrzejewska, B., Jędrzejewska, W., and Wajrak, A. 2005. Factors affecting carcass use by a guild of scavengers in European temperate woodland. *Can. J. Zool.* 83:1590.
- Servin, J., Lyndaker-Lindsey, S., and Loiselle, B. A. 2001. Pileated Woodpecker scavenges on a carcass in Missouri. *Wilson Bulletin* 113:249.
- Shuford, W. D., Warnock, N., and McKernan, R. L. 2004. Patterns of shorebird use of the Salton Sea and adjacent Imperial Valley, California. *Studies Avian Biol.* 27:61.
- Wander, W. 1981. Red Phalarope eating carrion. *Wilson Bulletin* 93:557.

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