MANVILLE, R. H. 1941. Crossbills breeding in northern Michigan. Wilson Bulletin 53:240–241.
MARSHALL, W. H. 1940. More notes on salt-feeding of Red Crossbills. Condor 42:218–219.
MCMILLAN, E. 1948. A nesting record for the Red Crossbill in California. Condor 50:44.
MEADE, G. M. 1942. Calcium chloride—a death lure for crossbills. Auk 59:439–440.
NETHERSOLE-THOMPSON, D. AND D. WHITAKER. 1984. Young crossbill feeding a sibling. Scottish Birds 13:87.
NUTTALL, T. 1903. A popular handbook of the birds of Canada and the United States. Musson Books, Toronto, Canada.
PAYNE, R. B. 1972. Nuts, bones, and a nesting of Red Crossbills in the Panamint Mountains, California. Condor 74:485–486.
SAINSBURY, M. 1978. Crossbills ''feeding'' on soil. British Birds 71:540–541.
SPEIRS, J. M. 1985. Birds of Ontario, vol. 2. Natural Heritage, Toronto, Ontario, Canada.
SUSIC, G. 1981. Red Crossbills (*Loxia curvirostra* L. 1758) feeding on mortar in a wall. Larus 33–35: 197–200.
SWIMLEY, T. J., T. L. SERASS, R. P. BROOKS, AND W. M. TZILKOWSKI. 1998. Predicting river otter latrine sites in Pennsylvania. Wildlife Society Bulletin 26:836–845.
TESTA, J. W., D. F. HOLLMAN, R. T. BOWYER, AND J. B. FARO. 1994. Estimating populations of marine river otters in Prince William Sound, Alaska, using radiotracer implants. Journal of Mammalogy 75: 1021–1032.
TOZER, R. 1994. Red crossbills feeding at mineral sources. Ontario Birds 12:102–108.
VAN DER WAL, R. AND M. J. J. E. LOONEN. 1998. Goose droppings as food for reindeer. Canadian Journal of Zoology 76:117–1122.
WATSON, A. 1955. Crossbills breeding in Aberdeenshire. Scottish Naturalist 67:121–122.

Wilson Bulletin, 116(2), 2004, pp. 184–186

Atypical Nest Site of a Semipalmated Plover

Linh P. Nguyen,[1,3] Robert F. Rockwell,[2] and Drake Larsen[2]

ABSTRACT.—We report on an unusual nest site of a Semipalmated Plover (*Charadrius semipalmatus*) at La Pérouse Bay, Manitoba, Canada. The nest was located at the base of a 41-cm-high willow (*Salix* spp.) in a dense willow patch surrounded by coastal mudflats. Vegetation height and percent visual obstruction at the nest site were unusually high compared to height and cover previously described for Semipalmated Plovers. The nest was successful (≥2 eggs hatched). The discovery of this unusual nest site in dense vegetation suggests that some Semipalmated Plover nests may be overlooked, emphasizing the need to conduct thorough searches even in non-traditional habitats among shorebird species that typically nest in open habitats. *Received 9 October 2003, accepted 1 June 2004.*

Charadriidae shorebirds nest in unlined to thinly lined, shallow depressions in hardened clay or silt, or in loose stones, pebbles, or sand in flat areas with sparse vegetation (Cooper and Miller 1997, Nol and Blanken 1999, Nguyen et al. 2003, Amat and Masero 2004). The disruptive effects of a plover's cryptic plumage and egg coloration against these substrates may enhance concealment from predators (Solís and de Lope 1995, Lloyd et al. 2000). Some plovers place their nests near objects or clumps of vegetation, which could provide microclimates that reduce thermoregulatory costs (Wolf and Walsberg 1996, Amat and Masero 2004). Cover, however, reduces visibility around a nest, which may result in a higher risk of predation compared to that of an exposed site (Koivula and Rönkä 1998, Amat and Masero 2004). Nest-site selection among shorebirds, therefore, may be a trade-off between needing security from predators, minimizing thermoregulatory costs, and having a view of the surrounding area (Wolf and Walsberg 1996, Koivula and Rönkä 1998, Amat and Masero 2004). Here, we report an unusual instance of a Semipalmated Plover (*Charadrius semipalmatus*) nesting in dense vegetation.

[1] Watershed Ecosystems Graduate Program, Trent Univ., Peterborough, ON K9J 7B8, Canada.
[2] Dept. of Ornithology, American Museum of Natural History, Central Park West, New York, NY 10024, USA.
[3] Corresponding author; e-mail: linhnguyen@trentu.ca

On 17 July 2003, LPN and DL found the unusual Semipalmated Plover nest site at La Pérouse Bay, Wapusk National Park, Manitoba, Canada (58° 45′ N, 93° 30′ W). Several times we observed a plover entering a large patch (6.8 m long × 5.1 m wide) of willow (*Salix* spp.) surrounded by coastal mudflats. We found the nest, which contained four eggs, at the base of a willow. The nest was approximately 1.7 m from the outer edge of the willow patch and 10.2 m from the nearest water. RFR observed eggs and adults at the nest on 21 July; 2 days later, the nest contained two chicks and two eggs. On 25 July, neither adults nor young were observed in the immediate area.

We used a tape measure at each corner of a 1-m^2 quadrat frame to calculate mean height (41 cm) of vegetation within 1 m of the nest site. We used a transparent, 20 × 20 cm density board (100, 2 × 2 cm cells) placed vertically on the ground at the nest site to calculate mean percent visual obstruction by vertical cover (97%) between the nest and the four quadrat corners (Nguyen et al. 2003).

Previous descriptions of nest sites used by Semipalmated Plovers (Cooper and Miller 1997, Robinson 1998, Nguyen et al. 2003, Smith 2003) have not mentioned sites in densely vegetated habitat. Vegetation height and percent visual obstruction by vertical cover at the unusual nest site described herein were much greater than those at other Semipalmated Plover nest sites: Akimiski Island, Nunavut (5.8 cm and 21%, respectively, n = 42; Nguyen et al. 2003); La Pérouse Bay, Manitoba (0 cm and 38%, respectively, n = 10; RFR unpubl. data); and East Bay, Nunavut (12 cm and 6%, respectively, n = 24; Smith 2003). Although Cooper and Miller (1997) did not report vegetation height and percent visual obstruction by vertical cover at plover nests in the Queen Charlotte Islands, British Columbia (n = 71), they described nest sites on open sand, under elevated ends of logs or planks, and on gravel patches, all different from the nest site that we observed. Similarly, Robinson (1998) did not report specific nest-site characteristics at plover nests in Churchill, Manitoba (n = 32), but his descriptions indicated that nests were found primarily on gravel and stone, or lichen and moss, suggesting that vegetation height and percent visual obstruction by vertical cover were different from those at the nest site we observed.

Semipalmated Plovers that nest in open sites with little or no concealment from vegetation may benefit from good visibility and early detection of predators. If true, one would expect a low rate of success among nests in dense vegetation. However, previous studies have shown that nest cover—an indicator of visibility—does not affect shorebird nest success at typical nest sites (Koivula and Rönkä 1998, Nguyen et al. 2003, Amat and Masero 2004). Additionally, nest sites used for renesting by Kentish Plovers (*C. alexandrinus*) had greater nest cover than those sites where the initial nest was depredated (Amat et al. 1999). We are not certain whether the Semipalmated Plover nest we found was the result of a late-nesting or renesting attempt. The discovery of a nest in dense vegetation, however, indicates that some Semipalmated Plover nests may be overlooked during monitoring or nest searching. We recommend that search efforts be increased in habitats of dense vegetation to assess the frequency of nesting in those types by shorebird species that typically nest in open habitats.

ACKNOWLEDGMENTS

We thank members of the La Pérouse Bay field station, the Hudson Bay Project, and Parks Canada. Financial support was provided by an Ontario Graduate Scholarship in Science and Technology to LPN, the Department of Indian and Northern Affairs Northern Scientific Training Grant Program, the Arctic Institute of North America Grant-in-Aid, Ontario Ministry of Natural Resources, and state and federal agencies of the Central, Mississippi, and Atlantic flyways. The cooperation of Wapusk National Park is greatly appreciated. We thank E. Nol and K. F. Abraham for providing valuable comments on earlier versions of the manuscript; J. A. Amat and three anonymous referees also provided valuable comments that improved the manuscript.

LITERATURE CITED

AMAT, J. A., R. M. FRAGA, AND G. M. ARROYO. 1999. Replacement clutches by Kentish Plovers. Condor 101:746–751.

AMAT, J. A. AND J. A. MASERO. 2004. Predation risk on incubating adults constrains the choice of thermally favourable nesting sites in a plover. Animal Behaviour 67:293–300.

COOPER, J. M. AND E. H. MILLER. 1997. Populations, status, and biology of shorebirds breeding near Masset, Queen Charlotte Islands. Pages 123–129

in The ecology, status, and conservation of marine and shoreline birds of the Queen Charlotte Islands (K. Vermeer and K. H. Morgan, Eds.). Canadian Wildlife Service Occasional Paper, no. 93, Ottawa, Ontario.

KOIVULA, K. AND A. RÖNKÄ. 1998. Habitat deterioration and efficiency of antipredator strategy in a meadow-breeding wader, Temminck's Stint (*Calidris temminckii*). Oecologia 116:348–355.

LLOYD, P., É. PLAGÁNYI, D. LEPAGE, R. M. LITTLE, AND T. M. CROWE. 2000. Nest-site selection, egg pigmentation and clutch predation in the ground-nesting Namaqua Sandgrouse *Pterocles namaqua*. Ibis 142:123–131.

NGUYEN, L. P., E. NOL, AND K. F. ABRAHAM. 2003. Nest success and habitat selection of the Semipalmated Plover on Akimiski Island, Nunavut. Wilson Bulletin 115:285–291.

NOL, E. AND M. S. BLANKEN. 1999. Semipalmated Plover (*Charadrius semipalmatus*). The Birds of North America, no. 444.

ROBINSON, C. 1998. A comparison of inland and coastal nest-sites of the Semipalmated Plover (*Charadrius semipalmatus*) in Churchill, Manitoba. B.Sc. thesis, Trent University, Peterborough, Ontario.

SMITH, P. A. 2003. Factors affecting nest site selection and reproductive success of tundra nesting shorebirds. M.Sc. thesis, University of British Columbia, Vancouver, British Columbia, Canada.

SOLÍS, J. C. AND F. DE LOPE. 1995. Nest and egg crypsis in the ground-nesting Stone Curlew *Burhinus oedicnemus*. Journal of Avian Biology 26:135–138.

WOLF, B. O. AND G. E. WALSBERG. 1996. Thermal effects of radiation and wind on a small bird and implications for microsite selection. Ecology 77: 2228–2236.

Wilson Bulletin, 116(2), 2004, pp. 186–188

Song in Female *Hylorchilus* Wrens

Héctor Gómez de Silva,[1,4,5] Curtis A. Marantz,[2] and Mónica Pérez-Villafaña[1,3]

ABSTRACT.—We report on the discovery of a distinct female song in Nava's Wren (*Hylorchilus navai*), similar to that recently discovered in Sumichrast's Wren (*Hylorchilus sumichrasti*). In both species, females sometimes countersing with males but do not combine their songs into a synchronized duet as in many other tropical wrens. We provide observations that suggest territorial defense, intra-pair contact, and perhaps mate-guarding as possible functions of female song in *Hylorchilus*, a little-known genus endemic to Mexico. *Received 12 December 2003, accepted 28 June 2004.*

In the largely Neotropical family, Troglodytidae, females show a diversity of singing behaviors (Farabaugh 1982, Barker 2003). In some species, females do not sing regularly, but in others female songs may be simple rattles (rapid repetitions of a single, low-pitched syllable), usually complementing their mates' more complex whistles. Female songs also may be sung in highly coordinated, whistled duets with their mates (Farabaugh 1982). Female rattles have been reported in Mérida Wren (*Cistothorus meridae*; Kroodsma et al. 2001), Carolina Wren (*Thryothorus ludovicianus*; Shuler 1965, Farabaugh 1982), House Wren [*Troglodytes aedon* (*musculus* group); cf. Skutch 1953, Farabaugh 1982, Sick 1993], Socorro Wren (*Thryomanes sissonii*; Howell and Webb 1995), and Sumichrast's Wren (*Hylorchilus sumichrasti*; Pérez-Villafaña et al. 1999). Here, we report on the discovery of female song in Nava's Wren (*Hylorchilus navai*) and provide observations on the context and possible function of female rattles in *Hylorchilus*, a little-known genus endemic to Mexico.

On 26 March 2002, while observing a singing male Nava's Wren at the type locality for this species northwest of Tuxtla Gutiérrez, Chiapas, Mexico (16° 56′ N, 93° 27′ W), HGdS and CAM heard and tape recorded a

[1] Inst. de Ecología, UNAM, A.P. 70–275, Ciudad Univ., UNAM, C.P. 04510, México, D.F., Mexico.

[2] Dept. of Biology, Univ. of Massachusetts, Amherst, MA 01003, USA.

[3] Calle 1537-3, Col. San Juan de Aragón, Sección 6, C.P. 07918, México, D.F., México.

[4] Current address: Xola 314-E; 03100—México, D.F., México.

[5] Corresponding author; e-mail: hgomez@miranda.ecologia.unam.mx