Loons return faithfully to the same wintering sites year after year

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Every winter, Common Loons like this one are unable to fly while they molt their feathers. Credit: D. Long

Common Loons (*Gavia immer*) nest on lakes across Canada and the northern U.S., but every winter they disperse, many to the open ocean where they're difficult to track. It's been well established that many loons return to the same nesting sites every spring, but new research in *The Condor: Ornithological Applications* shows for the first time that they are similarly faithful to their wintering sites. Over the course of nearly 15 years, James Paruk of the Biodiversity Research Institute and his colleagues used a combination of methods to investigate winter site fidelity at four locations across North America and found that birds had an 85% chance of returning to a site in subsequent years. Because loons' coastal wintering habitats can be severely impacted by oil spills and other human activities, this information has important implications for wildlife managers.

Common Loons have an enormous winter range, including nearly all of North America's coastlines as well as some large freshwater reservoirs. Paruk and his colleagues collected data at four sites spread across the continent, three on the coasts of Maine, Louisiana, and California and one at an inland reservoir in Washington. In Louisiana, California, and Washington they captured loons and gave them leg bands in unique color patterns so they could recognize individuals and determine which ones came back, while in Maine they outfitted loons with satellite transmitters. Both methods showed the same result: the birds had a high probability of returning to the same wintering sites year after year.

The researchers speculate that loons benefit from the local knowledge they gain from returning to the same area again and again; they can learn the best spots to find food and hide from predators, which can be especially important for loons in winter. Adult loons go through a molt in winter that leaves them temporarily unable to fly, making it especially important to select a good site to spend the winter.

"Our finding was one of the last key unknowns about Common Loon

natural history, and it was good to get some solid data on this topic," says Paruk. Collecting that data, however, was something of an adventure. "While catching loons in 2014, I was at the bow, and the captain called to me to pick up a buoy-type bottle bobbing in the ocean. As we approached, I leaned over the bow and picked it up, and just beneath, and scaring the daylights out of me, was a four-foot sand shark! It just missed me, and made me feel quite out of my element."

A number of marine oil spills have impacted Common Loon wintering habitat in recent decades, and the more loons return to the same contaminated areas, the more their breeding success and ability to survive could be affected by chronic exposure. For conservationists, this new piece of information about the life history of loons could be an important key for keeping populations healthy, so that these iconic birds can continue to knit together forest lakes and far-flung coasts for a long time to come.

More information: "Winter Site Fidelity and Winter Movements in Common Loons (Gavia immer) Across North America" will be available September 2, 2015 at www.aoucospubs.org/toc/cond/117/4

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