POPULATION STATUS AND TRENDS OF THE KITTLITZ'S MURRELET *BRACHYRAMPHUS BREVIROSTRIS*

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Evaluating the status of a species is a fundamental challenge in conservation, requiring knowledge of its distribution, population size and trend. Unfortunately, few species have been studied and monitored sufficiently over time to acquire this information, and this is especially true of species that are rare or uncommon. Ironically, it is these uncommon species for which we often have concerns regarding their conservation and status.

For marine birds, surveys are often conducted at sea or at colonies to estimate distribution, abundance and the rate of change in populations. These approaches are useful in monitoring populations of the most common species, but do not capture solitary-nesting species, such as the Kittlitz's Murrelet *Brachyramphus brevirostris*. This small seabird, endemic to coastal Alaska and the Russian Far East, is currently a candidate for listing under the US *Endangered Species Act* because of reported population declines in some locations (US Fish and Wildlife Service 2010), but quantifying the magnitude and variability of the trend has been difficult.

First, present-day populations are geographically clustered, usually in remote areas that are difficult to reach and survey. Second, the Kittlitz's Murrelet can be difficult to distinguish from the more common, congeneric Marbled Murrelet *B. marmoratus* during surveys. As a result, varying proportions of *Brachyramphus* murrelets are identified to genus only. Third, nonbreeding appears to be common in this species (Day & Nigro 2004; M. Kissling, unpublished data), and, therefore, large numbers of Kittlitz's Murrelet are not tied to breeding sites and are highly mobile during the breeding season when surveys are conducted. In addition to the inherent difficulty of estimating trends in Kittlitz's Murrelet populations, survey objectives, designs and protocols have varied within and across sites over time, complicating the comparability of survey data. Moreover, the results of historical surveys were often summarized in unpublished reports, limiting access to these important data.

The symposium entitled "Population status and trends of the Kittlitz's Murrelet" was organized to resolve some of these issues by summarizing historical and recent data and by providing access to survey results in the peer-reviewed literature. With these proceedings, we now have the most current and comprehensive information available on distribution, population size and trends of the Kittlitz's Murrelet from nearly the entire range of the species, including Russia. In addition, some authors examined potential nesting habitat and seasonal-use patterns of Kittlitz's Murrelet in their study areas. The symposium also included topics relevant to evaluating and interpreting status and trends, such as new information on the genetic differentiation of the Kittlitz's Murrelet in selected areas and on improved survey designs and protocols for future monitoring of Kittlitz's Murrelet populations at sea.

The overall goal of the symposium was to present the most comprehensive evaluation of the population status and trends of the Kittlitz's Murrelet, and I believe that we accomplished this goal. However, interpretation of the variability and trends reported was limited by a lack of information on the basic biology of the Kittlitz's Murrelet, especially movements, breeding propensity and phenology, and philopatry. In addition, in viewing the papers collectively, notable survey gaps are evident. For example, there is little information about Kittlitz's Murrelet distribution during the nonbreeding season (September–April) and in some geographic areas, such as the Bering Sea, Bristol Bay, and the marine waters near Kodiak and Kayak islands. Regardless of the boundaries of our knowledge of this little-known species, these papers provide a foundation for developing the scientifically sound survey designs and protocols needed to estimate population trends of the Kittlitz's Murrelet into the future. And, of course, it is the future and continued survival of the Kittlitz's Murrelet that is the ultimate goal.

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