Steller's Eider Pilot Satellite Telemetry Study

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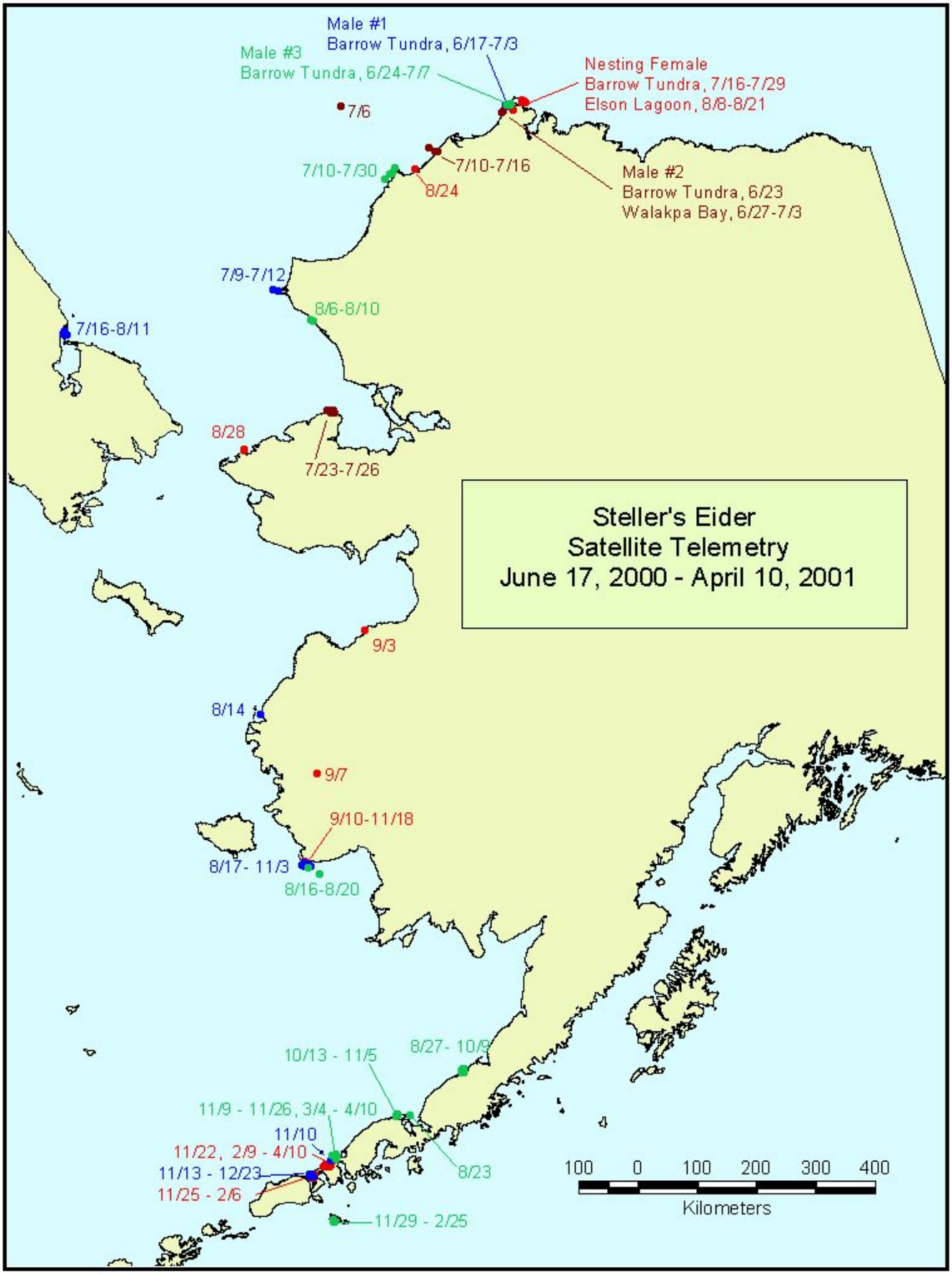

The objective of this study is to identify wintering areas of Alaska-breeding Steller's eiders, which is the population listed under the Endangered Species Act. Information on habitat use (on a broad scale) and migration timing are also obtained. This year's effort is

considered a pilot study, but has yielded some interesting results. Transmitters were implanted into 3 males during the pre-breeding and nest initiation periods, and 1 incubating female.

The female (shown in red), deserted her clutch, but remained in the Barrow area until late August. It molted at Kuskokwim Shoals, off the south side of the Yukon-Kuskokwim delta. After departing in mid-November, it made a stop in the central portion of Izembek Lagoon, and then proceeded to the Hook Bay portion of Bechevin Bay in late November, where it remained until early February. By 9 February, it had relocated to western Izembek Lagoon, where it remains, as of 10 April.

Males departed the Barrow area in early July. Male #1, (shown in blue) also molted at Kuskokwim Shoals. After 2 1/2 months at that location it departed in early November. It made a stop in the central portion of Izembek Lagoon (one fix), and then moved to the Hook Bay portion of Bechevin Bay by 13 November. Its transmitter failed in late December.

Male #3 (shown in green on the map) spent the molt period at Seal Islands, moving west to Nelson Lagoon after 9 October. After spending approximately three weeks in Nelson Lagoon, it moved west to Izembek Lagoon, and then to Sanak Island at the end of November, where it remained for three months. During that time, its use area was small, only a few square kilometers. It relocated to central Izembek Lagoon, in early March, remaining there as of 10 April.

Male #2 died in late July, approximately one month after surgery. Thus, only two of the original four transmitters are still providing bird locations. Clearly, with such a small sample, it is unwise to generalize about the population. From a technical standpoint, however, the pilot project has been sufficiently successful to encourage additional work in 2001. We are hoping to implant 10 Steller's eiders at Barrow this year.