



Photo: Jim Denny

## Migratory Birds

# Koloa māpu or Northern Pintail

*Anas acuta*

### SPECIES STATUS:

State recognized as Indigenous

**SPECIES INFORMATION:** The Koloa māpu, or northern pintail, is a dabbling duck (Family: Anatidae), common throughout the northern hemisphere, that winters in the main Hawaiian Islands, typically arriving in August, and departing for Siberia, Alaska, or Canada in late March or April. Koloa māpu feed primarily on the seeds and leafy parts of aquatic grasses, as well as aquatic invertebrates such as snails and beetles, with live prey being especially important in the early spring. As with most dabbling ducks, koloa māpu are sexually dichromatic in plumage, but less dramatically so than mallards. Breeding males are dark brown on the head and upper neck, white across the lower throat, and gray about most of the body, while female plumage is mottled light and dark brown. Nonbreeding male plumage is similar to that of females. Being gregarious, koloa māpu form pair bonds but remain promiscuous during breeding. They are known to hybridize with six other North American duck species (mallard, black duck, green-winged teal, American wigeon, Chiloe wigeon, and redhead) and with at least three other species in Eurasia.

**DISTRIBUTION:** Common throughout the southern and western United States and Mexico during the winter, shifting to the northernmost central U.S., west central Canada, and Alaska during the breeding season. Koloa māpu are also common through Eurasia. In Hawai'i, koloa māpu have been sighted routinely on all of the MHI, but have not been recorded in the NWHI.

**ABUNDANCE:** Among the most populous of North American ducks, koloa māpu surveys (USFWS) for the region from 1955 through 1995 yield an average breeding population estimate of over three million birds, with populations declining from over six million in the early 1970s to less than three million into the early 1990s. A fairly common visitor to the Main Hawaiian Islands (MHI), koloa māpu are usually present each year in the low hundreds. State Waterbird surveys from 1986 to 2003 provide an average of  $190 \pm 29$  (SE) birds per year wintering in the MHI.

**LOCATION AND CONDITION OF KEY HABITAT:** During winter, koloa māpu utilize a variety of shallow inland freshwater and intertidal habitats, typically shallow wetlands with little emergent cover (although at night they prefer emergent stands of food plants). They will also use flooded agricultural habitats (especially rice, corn, wheat, soybeans, and pastures), reservoirs, tidal wetlands, bays, and estuarine habitats. In Mexico, koloa māpu favor areas where excess irrigation water flows into salt flats or tidal basins; also mangrove mud flats,

irrigation reservoirs, and ephemeral ponds. Some of these types of areas are already protected; others have been lost to development.

**THREATS:** Primary threats include the following:

- Loss of wetland habitat to development, pollution, or habitat-modifying invasive plants.
- Avian disease.

**CONSERVATION ACTIONS:** To protect the ability of wintering koloa māpu to survive while in Hawai'i and to return in good condition to breeding grounds in North America, statewide and island-specific conservation actions should include:

- Protection of current habitat.
- Protection and restoration of additional wetland habitat, especially where it can be reclaimed from abandoned urban or agricultural uses.

**MONITORING:** Continue surveys of population and distribution in known and likely habitats.

**RESEARCH PRIORITIES:** Only one published study of visiting koloa māpu has been undertaken, probably in part because of their annual presence and numbers are uncertain. Research priorities should include the following:

- Better understanding of habitat needs and preferences, including foraging and population limiting factors.
- Population reactions to habitat modifications, changes in food availability, and competition with other migrants.
- Life-history and population dynamics in wintering areas.
- Better understanding of geographic relationship between nesting areas and wintering areas.
- Make-up of local populations relative to survival and condition during winter.

**References:**

Austin JE, Miller MR. 1995. Northern pintail (*Anas acuta*). In *The Birds of North America*, No. 163 (Poole A, Gill F, editors). Philadelphia, (PA): The Academy of Natural Sciences; and Washington DC: The American Ornithologists' Union.

Udvardy MD, Engilis, Jr., A. 2001. Migration of northern pintail across the Pacific with reference to the Hawaiian Islands. *Studies in Avian Biology* No. 22: 124-132.