California Wildlife Habitat Relationships System
California Department of Fish and Wildlife
California Interagency Wildlife Task Group

TUFTED PUFFIN *Fratercula cirrhata*
Family: ALCIDAE Order: CHARADRIIFORMES Class: AVES
B248

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DISTRIBUTION, ABUNDANCE, AND SEASONALITY

Occurs sparsely along the California coast from Prince Island in Del Norte Co. to Point Conception (Sowls et al. 1980). Nests on islands and, less commonly, on coastal cliffs. Most common at nesting colonies, and on nearby marine pelagic and subtidal waters, from late March to September. Dispersed more widely over the ocean the balance of the year (Cogswell 1977). The estimated 250 in California breed mainly on Castle Rock and a few other islands off Del Norte and Humboldt cos. (50% of the population), and on the Farallon Islands (40% of the population). The remaining breeding colonies each contains fewer than 10 individuals (Sowls et al. 1980). Formerly bred as far south as the Channel Islands (Grinnell and Miller 1944). Recent breeding documented at Prince Island and Castle Rock off Del Norte Co., Green Rock and Puffin Rock off Humboldt Co., and the Farallon Islands (Sowls et al. 1980). Remsen (1978) also reported breeders on Flatiron Rock off Humboldt Co., Arched Rock off Sonoma Co., and Piedras Blancas off San Luis Obispo Co.

SPECIFIC HABITAT REQUIREMENTS

Feeding: Feeds on medium-sized fish such as smelt, herring, and sea perch, some crustaceans and squid (Cogswell 1977, Hatch et al. 1979). Forages by diving and pursuing prey (Terres 1980). Feeds up to 8 km (5 mi), or more, from the colony, and returns to the nest with 1 or several fish held crosswise in the bill (Cogswell 1977).

Cover: Perches on rocky outcroppings on islands, not necessarily near the nest (Cogswell 1977). Also found singly or in small groups on the ocean.

Reproduction: Nests in burrows on island cliffs or on grassy island slopes (Sowls et al. 1980). Excavates the burrow with the bill and feet. Also use burrows or cavities in loose rock (Sowls et al. 1980). DeSante and Ainley (1980) reported a few pairs occupying recently vacated rabbit burrows on Southeast Farallon Island. Because few islands in California provide ideal nesting habitat, the opportunities for population growth are limited.

Water: No known requirements for fresh water.

Pattern: Requires islands free from human disturbance, with soil suitable for digging burrows, or with natural rock cavities. Also requires large schools of pelagic fish, such as smelt or herring (Cogswell 1977).

SPECIES LIFE HISTORY

Activity Patterns: Diurnal, unlike many of the smaller alcids. Visits the nest burrow in daylight hours (Cogswell 1977). When fledgling leaves the burrow to go to sea, however, emerges at night (Sowls et al. 1980).

Seasonal Movements/Migration: Displays no tendency to migrate south in winter. However, after young have fledged in August, both adults and young move far out to sea and are seen only occasionally near land.

Home Range: Forages 8 km (5 mi), or more, from the nesting colony (Cogswell 1977).

Territory: No data found.

Reproduction: Lays egg from April through early June, and hatches from May through early July (Sowls et al. 1980). Young fledges from mid-July through August (Sowls et al. 1980). Colonial nester; produces 1 egg/clutch, and probably only 1 clutch/yr (Harrison 1978). Incubation 30-32 days, and semiprecocial nestling remains in the burrow for 50-60 days (Harrison 1978, Sowls et al. 1980). Both parents tend the young (Harrison 1978). Young leaves nest before capable of flight, and accompanies parents to sea (Harrison 1978).

Niche: Less troubled by avian predators, such as gulls, than are the smaller alcids. However, nocturnal departure with fledgling suggests that the diurnal gulls are a threat to the smaller, inexperienced young. Numbered in the thousands in California at the turn of the century (Grinnell and Miller 1944). The dramatic population decline apparently resulted from a combination of factors, including oil pollution, crash of the Pacific sardine population, and human disturbance at nest sites (Ainley and Lewis 1974). The warmer ocean temperatures that occurred during summer, 1983, resulted in a reduction in food supply. This produced a dramatic nesting failure on the Farallon islands; fewer than 10% of the nest sites were occupied (Ainley 1983).

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