

NOTES ON THE AVIFAUNA OF A TRANSITION ISLAND  
IN NAPA COUNTY, CALIFORNIA

By HAROLD W. CLARK

Brief mention has been made in the past (Mailliard, Proc. Calif. Acad. Sci., ser. 4, ix, no. 10, pp. 273-296) of the existence of a small Transition-zone area on Mount St. Helena in Napa County, California. From studies which the writer of the present paper has been making for five or more years, it seems evident that an extension of this zonal area ought to be made. A list of the trees, shrubs, and herbaceous plants, with the birds found along the Napa Range from Mt. St. Helena southeast to the vicinity of Conn Valley east of St. Helena, contains so many typical Transition species that we are of the opinion that a good share of this region ought to be considered as belonging to the Transition life-zone—the only large area of this zone in Napa County. This list includes 15 trees and shrubs, 8 flowering plants, 12 strictly Transition birds, and 13 birds that range in both Transition and Upper Sonoran.

Southeastward from Mt. St. Helena, the range is broken. Several old cones and volcanic "necks" rise to about 3000 feet altitude, and on the west side extensive cliffs of columnar andesite, the "Palisades", over 400 feet high, overlook Calistoga, 2000 feet below. The soil on this ridge is largely disintegrated lava, with much rotten tufa. The cañons have cut deeply into the east side from Pope Valley, and up these cañons, on the south-facing slopes have come several Upper Sonoran types, blue oak (*Quercus douglasii*), digger pine (*Pinus sabiniana*), chamise (*Adenostoma fasciculatum*), and many of similar habitat preferences. Among these trees and shrubs may be heard the notes of such common birds as the Wren-tit (*Chamaea fasciata henshawi*), Plain Titmouse (*Baeolophus inornatus*), California Jay (*Aphelocoma californica*), and the Sonoma Thrasher (*Toxostoma redivivum sonomae*). But on the north-facing slopes and the damper and cooler areas are abundant stands of cañon live oak (*Quercus chrysolepis*), black oak (*Quercus kelloggii*), tan oak (*Lithocarpus densiflora*), and Douglas fir (*Pseudotsuga taxifolia*). Big-leaf maple (*Acer macrophyllum*), dogwood (*Cornus nuttallii*), hazel (*Corylus rostrata californica*), incense cedar (*Libocedrus decurrens*), and redwood (*Sequoia sempervirens*) are fairly common also. On the higher portions of the range the madrone (*Arbutus menziesii*) grows in dense stands along with some black oak and yellow pine (*Pinus ponderosa*).

Directly east of Calistoga one reaches Three Peaks (3300 feet), the highest point between Mt. St. Helena and the Bay. Below, Howell Mountain lies spread out, a volcanic plateau whose rim is about 1800 feet high, with a depression 200 feet depth in the center which appears to be the remnant of an ancient crater. Around the north and east sides of this plateau, and covering most of the eastern two-thirds of the mountain, is a distinct Transition area. Omitting the incense cedar, the same species noticed north of Three Peaks flourish here in abundance; and with the exception of a few scattered redwoods, the heavy forest shows the characteristics of the tan oak-Douglas fir Transition of northern Lake County and Mendocino County. In the damper ravines are to be found *Trillium sessile chloropetalum*, *Trillium sessile giganteum*, *Asarum caudatum*, *Aralia californica*, and *Symphoricarpos racemosus*. Stream beds are full of *Rhododendron occidentale*. Rocky slopes are made beautiful by tall sprays of *Heuchera micrantha*; and the dry uplands under the yellow pines glow in the spring time with *Viola lobata*. Occasional clumps of

*Prunus demissa* and *Ceanothus thyrsiflorus*, and now and then beds of *Fragaria californica* and *Whipplea modesta*, add a distinctly Transition effect to the forest.

The following strictly Transition avifaunal representatives are to be found in various habitats offered by this forest.

*Oreortyx picta*. Mountain Quail. Occasionally heard in the wilder parts of the region. One or two flocks have come onto the campus of Pacific Union College, which is located in the ancient crater mentioned above.

*Glaucidium gnoma grinnelli*. Coast Pigmy Owl. Common around gardens and orchards and in the forest.

*Dryobates villosus hyloscopus*. Cabanis Woodpecker. Fairly common resident among the oaks and in fir woods.

*Phloeotomus pileatus abieticola*. Northern Pileated Woodpecker. Workmen on Dr. Wm. F. Bade's wild life refuge on the north side of Howell Mountain have reported this woodpecker several times; and during the spring of 1929 two or three were seen by several observers, including the writer, on or near the College campus.

*Selasphorus alleni*. Allen Hummingbird. Common summer resident, often seen around the flowers in gardens.

*Cyanocitta stelleri frontalis*. Blue-fronted Jay. Abundant in coniferous woods throughout the whole region.

*Piranga ludoviciana*. Western Tanager. Although not commonly known, nesting birds have been found, and the call notes are frequently heard.

*Dendroica auduboni auduboni*. Audubon Warbler. Abundant resident among the black oaks and partly open forests of the whole area.

*Vireo solitarius cassinii*. Cassin Vireo. Abundant among the cañon live oaks and in the deeper woods and cañons.

*Sitta pygmaea pygmaea*. Pigmy Nuthatch. Occasionally seen and heard, and at least one flock of young birds recorded. During the summer of 1926, this flock came regularly to drink from a dripping faucet in the writer's garden.

*Penthestes rufescens rufescens*. Chestnut-backed Chickadee. Erratic flocks come and go at all times of the year, and it is probable that they breed in the deeper forest areas.

*Turdus migratorius propinquus*. Western Robin. Abundant resident on Howell Mountain, nesting in numbers on the campus of Pacific Union College. One nesting bird raised two broods in a madrone tree within twenty feet of where workmen were building an annex to the ladies' home. Directly beneath the nest was a motor and power saw, but the bird appeared to be undisturbed by the noise and the men at work. In the winter these birds gather by hundreds in the orchard.

In addition to the above strictly Transition species, the following birds are common or abundant, whose range is at least partly Transition.

- Valley Quail (*Lophortyx californica vallicola*)
- California Coast Screech Owl (*Otus asio bendirei*)
- Red-shafted Flicker (*Colaptes cafer collaris*)
- Western Flycatcher (*Empidonax difficilis*)
- Olive-sided Flycatcher (*Nuttallornis borealis*)
- Brewer Blackbird (*Euphagus cyanocephalus*)
- Chipping Sparrow (*Spizella passerina arizonae*)
- Spotted Towhee (*Pipilo maculatus*)
- Black-headed Grosbeak (*Zamelodia melanocephala capitalis*)
- Western House Wren (*Troglodytes aëdon parkmanii*)
- Golden Pileolated Warbler (*Wilsonia pusilla chryseola*)
- Lutescent Warbler (*Vermivora celata lutescens*)
- Bush-tit (*Psaltriparus minimus*)

In view of these facts, from both the flora and avifauna of the region, it seems as if we ought to recognize a strip of broken Transition from Mt. St. Helena to Three Peaks, and then an area of about twenty square miles covering most of the top and nearly all the upper part of the northern and eastern sides of Howell Moun-

tain as far south as Pine Crest, east of Conn Valley. In this region are many interesting and important problems relating to the distribution of the life north of San Francisco Bay, and in the relation between the Bay, North Coast, and Sacramento Valley faunal districts.

*Pacific Union College, Angwin, California, July 24, 1929.*