

1769 observatorium / (pp. 453-504) contains diagnoses of six species of birds, none of which are as yet known from North America.

Zweyter Theil / *Erstes Buch* / vom Jahr 1770 / *St. Petersburg, 1773, 4 + 3-368 pp., + 6 pp. of errata and improvements, numerous pls.*

Running heads agree as to the year involved. There is no "Anhang," but the plates illustrate seven of the new species of birds described in volume 2, part 2, 1773.

Zweyter Theil / *Zweytes Buch* / vom Jahr 1771 / *St. Petersburg, 1773, 371-744 pp., numerous pls.*

Running heads agree as to the year involved. "Anhang" (pp. 701-744) includes descriptions of 22 species of birds of which two have subsequently been recorded from North America. *Anas rufina* (p. 713) = *Netta rufina* of the A. O. U. Check-List, 1931 edition. *Charadrius tataricus* (pp. 715-716) = *Eudromias morinellus*.

Dritter Theil / *Vom Jahr 1772 und 1773* / *St. Petersburg, 1776, 20 + 3-454 pp., numerous pls.*

This is part of the third volume; the running heads show that only the year 1772 is dealt with.

Dritten Theils / *Zweytes Buch* / *No title page.* [Upon authority: *St. Petersburg, 1776*] 457-760 pp. + 25 pp. (index) + 1 p. (errata), 3 maps but no other pls.

This "Buch" relates to the years 1773 and 1774. "Anhang" (pp. 691-760) contains descriptions of 32 species of birds, of which seven are also North American.

Motacilla montanella (p. 695) = *Prunella montanella*.

Emberiza rustica (p. 698) = the same.

Charadrius hypomelus (pp. 699-700) = *Squatarola squatarola*.

Charadrius mongolus (p. 700) = the same.

Tryngra ruficollis (p. 700) = *Erolia* [*Pisobia*] *ruficollis*.

Anas falcaria (pp. 701-702) = *Anas* [*Eunetta*] *falcata*.

Larus minutus (p. 702) = the same.

Pallas was an all around naturalist, as he described new species of vertebrates, insects, mollusks, and plants from almost the whole range of the plant kingdom. Many of the plants are well illustrated and seven of the new species of birds (none of the North American ones, however) are figured.

His proposals of new species of birds, most of which are still accepted, number 60, and of these nine are included in our Check-List.—W. L. McARTHUR, *Chicago, Illinois.*

Relation of the desert ironwood tree to nesting.—Over vast areas of the hot Sonoran deserts of Southern California, Arizona, Baja California and Sonora grows the ironwood tree, *Olyneya tesota*. It is especially abundant along the numerous dry and sandy water courses which during summer carry the sheet-flood waters of cloudbursts. Many of the trees are 10 to 30 feet in height and for most of the year have a heavy covering of gray-green foliage. In early summer there is generally an abundance of flowers, followed by a heavy yield of pods containing small, round, flattened seeds. Most of the trees are heavily infested with the leafless desert mistletoe, *Phoradendron californica*, the numerous berries of which yield a source of both food and water to a number of the desert's resident and migratory birds. Among these are the phainopepla, *Phainopepla nitens*, western bluebird, *Sialia mexicana*, and western robin, *Turdus migratorius*. The desert ironwood is not only a leafy tree but also a thorny one, and one would expect that quite a number of desert birds such as shrikes, roadrunners, costa hummingbirds, and gnatcatchers, which ordinarily nest in or about thorny trees and shrubs, would often choose the ironwood trees.

But for some unknown reason such is not the case. I have made, during the past ten years, a special effort to find the nests of birds in *Olneya*, inspecting diligently literally thousands of trees and have been impressed by the almost complete absence of nests. Mr. Wilson G. Hanna who has for years been a persevering collector of birds' nests and eggs, as well as data on birds, has had a similar experience. As do I, he raises the query: Why do so few birds make use of the ironwood as a nesting tree? "No doubt there are exceptions," he once said to me, "but my experience has been that the ironwood is not used when other trees are near by."

Other than those made by the phainopepla which feeds on berries of the mistletoe, I have found in *Olneya* less than a dozen nests. Several of these were very old and may have been those of the mourning dove. Four were those of the verdin, *Auriparus flaviceps*. A verdin's small roosting nest and two large incubating nests I found in a single tree. The other, a roosting nest, was found in a tree near by. All four nests may have been built by the same birds during two successive seasons. I have one record of a nest of a Sonora black-tailed gnatcatcher, *Poliophtila melanura*. Mr. Hanna tells me that he has on a number of occasions found the nests of the western red-tailed hawk, *Buteo jamaicensis calurus*, in ironwood.

The phainopeplas which build in *Olneya* trees are probably attracted more by the protection and food provided by the mistletoe than by any special advantages offered by the trees. In other words, the relation is primarily between the birds and the mistletoe, and only secondarily between the birds and the trees.

Several times I have found in long-dead ironwood limbs the excavations of the ladder-backed woodpecker, *Dendrocopos scalaris*, but I could not find evidence that a nest had been built in them, except in one instance. As a general rule, seasoned ironwood is so exceedingly hard to chisel into that small woodpeckers are not attracted to it. This woodpecker occasionally works into the smaller, softer branches to obtain the larva of wood-boring beetles that often infest the inner wood.

Both verdins and gnatcatchers frequently hunt over the small leafy twigs for insects and insect larvae, especially small curculid beetles and leaf-eating larvae of a number of smaller moths.

During the winter season, it is quite a common experience in the daytime to flush long-eared owls, *Asio otus wilsonianus*, from among the top branches. Both in summer and in winter, the larger trees are a favorite roosting place for the gambel's quail, *Lophortyx gambeli*. They offer the birds excellent shelter, both from wind and from avian and mammalian enemies. The quail, like the phainopepla, are often able to flourish in some of our broad waterless desert areas largely because of their habit of eating the berries of the desert mistletoe, in addition to insects and the succulent leaves of several species of *Lycium*.—EDMUND C. JAEGER, *Riverside College, Riverside, California*.

"Probability" in subspecific determinations: some comments.—A. L. Rand's paper on subspecific identification (*Auk*, 65: 416-432, 1948) has so much to recommend it, in setting the stage for discussion, that I trust the following comments will not be considered too amiss.

1. Probability, even to those who are not statisticians, has come to have a mathematical or numerical connotation. A better term is "likelihood" even though this word also is beginning to have numbers attached to it. Perhaps the only non-statistical choice is "sweet reasonableness."

2. It is increasingly clear that little can really be said about variation within a population until we can speak statistically. The mean and extremes of a character