

palmed Plovers (*Charadrius semipalmatus*), which were feeding with other shorebirds around shallow pools and tidal channels 15 to 100 meters south of the woodhewer. The latter hopped along in the manner of a flicker (*Colaptes* sp.) feeding on a lawn, but held its body more level and its tail higher than a flicker normally does. When I approached the woodhewer, it moved to a stump and then flew to a telephone pole some 10 meters north, near the main road. Instead of flying to the nearest patch of low mangroves, about 20 meters west, the woodhewer then flew down to the grass and mud flats north of the road and resumed feeding among the stumps.

On the following day another woodhewer was seen in the forested hills about four kilometers northeast of these mud flats. This bird was feeding on the trunks of trees and in bromeliad epiphytes in the way that I have often seen the species feed in British Honduras. In the mangroves 1.1 miles south of these mud flats, W. J. Maher had collected an Ivory-billed Woodhewer (Mus. Vert. Zool. No. 134169) on 27 December 1955. Dickey and van Rossem (The Birds of El Salvador, Zool. Ser., Field Mus. Nat. Hist., 23: 323. 1938) found that *Xiphorhynchus flavigaster* often fed on the ground, but they encountered the species only in forests. If ability to find food during the nonbreeding season in such diverse habitats as mud flats, mangrove swamps, and upland forests is characteristic of the species, it is not surprising that *Xiphorhynchus flavigaster* has a wider distribution in the Mexican lowlands than any other species of woodhewer.—EDWIN WILLIS, *Museum of Vertebrate Zoology, Berkeley, California.*

**Occurrence of *Collyriclum faba* in Steller's Jay.**—A Steller's Jay (*Cyanocitta stelleri*) was collected by Charles Fred on 1 December 1959 at the base of the Shoemaker Grade on the Grand Ronde River, Asotin County, Washington. The bird was infected with 26 adult *Collyriclum faba* which were in 13 cysts adjacent to the anus. Each cyst contained two flukes and the cluster of cysts presented a tumorlike mass.

The occurrence and distribution of *C. faba* was reviewed by Farner and Morgan (Auk, 61: 421-426, 1944). They reported that the distribution of the fluke in the United States was limited to the Eastern and North-central areas with no records west of the Great Plains. This appears to be the first record of *C. faba* in the Pacific Northwest and the first record of Steller's Jay serving as a host for this parasite. It is hoped that this report will stimulate collectors to examine the anal region of birds for this interesting fluke and throw more light upon its distribution and life cycle; the latter is still unknown.—C. W. McNEIL, *Washington State University, Pullman, Washington.*

**An Avian Air Battle.**—An ornithology class observed an unusual air combat between two Sparrow Hawks (*Falco sparverius*) and three Common Crows (*Corvus brachyrhynchos*) about 10 A.M., 15 June 1955, over the Conodoguinet Creek in south-central Pennsylvania. Apparently the conflict had started only a short time before the birds were seen, for they were within a vertical range of two to three times the height of several large sycamore trees; the action ended so high the two species could hardly be distinguished by the naked eye.

The falcons were rather swifter in the diving, at times using even two or three wing strokes at the start of the downward glide to pick up velocity rapidly. In coming out of the dive, both species, using their momentum, shot rapidly upward, wings rigid as in the dive, until their speed was checked to the point that wing

strokes became necessary. In using the velocity attained at the end of a dive to gain a quick start up again, the falcons seemed to move faster and to go higher in the upward glide than the crows. As propulsive flight was assumed, the climb took on a spiral form and was much slower for both species. In the diving, neither species seemed to desire to make a strike, but rather to threaten and frighten.

After watching the action for about a minute with one bird after another, falcon or crow, diving in an attack, then starting to climb again, the observers seated themselves on the roadside. A number of times when one bird had started a dive on a lower enemy, still another bird would be high enough to start an attack on the attacker—thus three birds would be diving at different depths at one time. Meanwhile the general elevation of the action had doubled.

Next a feud seemed to develop between one crow and one falcon. They drifted off to one side, and after a few more passes, withdrew. The remaining falcon and crows moved steadily higher and higher until they appeared quite small. All three adversaries seemed to climb with increasing difficulty, attacks coming at longer intervals as they drifted upward in steep spirals. However, an attack was made whenever one combatant appeared to have an altitudinal advantage. Several times after the battle was at great altitude, one or the other crow seemed about on the point of disengaging, then would swing back in. I have rarely seen crows so high and have never seen an aerial action so prolonged. The contest lasted approximately five minutes. As the crows withdrew, the falcon made a very graceful and speedy glide down toward the sycamores.—THOMAS SMYTH, *State College, Shippensburg, Pennsylvania.*