have been important because the water in these impoundments is deeply stained by decaying organic material and the mergansers may have required rather shallow water to find their food.

When seen on Knowles Unit Three on 5 June, the brood still contained seven ducklings. It consisted of six ducklings when last seen on 10 June. On 29 June, two of the young, both males, were caught in a bait trap. They were then within about three days of flying, indicating that flying age is reached in about 71 days. Hochbaum (*op. cit.*: 108) found most puddle ducks (Mallard, Gadwall, Baldpate, Pintail, Shoveler) fly in from 38 to 63 days, while diving ducks (Redhead, Canvasback, Lesser Scaup, White-winged Scoter) required 63 to 77 days. It appears that flight age for Hooded Mergansers is attained later than in most puddle ducks and about the same as in most divers.—FRANK B. MCGILVREY, *Bureau of Sport Fisheries and Wildlife, Patuxent Wildlife Research Center, Laurel, Maryland.*

Competitive exclusion and birds at fruiting trees in western Colombia.—During an hour or two of observations from 20 to 22 March 1962, I observed 28 species of birds feeding on the small, blue berries of *Conostegia* sp., affinities with *icosandra* (Melastomaceae). These small trees produce abundant fruit and are common on the steep slopes at 4,500 feet elevation by the Cali-Buenaventura road below Queremal (3°32′ N lat., 76°43′ W long.), Valle, Colombia. The species observed were: pigeons, *Columba fasciata*; barbets, *Capito bourcierii*; woodpeckers, *Piculus rubiginosus*; manakins, *Allocotopterus deliciosus*; tyrant flycatchers, *Tyrannus melancholicus, Elaenia flavogaster, Elaenia* sp. (*obscura*?); thrushes, *Turdus ignobilis, Myadestes ralloides*; wood warblers, *Vermivora peregrina*; honeycreepers, *Coereba flaveola, Chlorophanes spiza*; tanagers, *Chlorophonia cyanea, Pipraeidea melanonota, Tangara arthus, T. icterocephala, T. parzudakii, T. labradorides, T. cyanicollis, T. gyrola, T. ruficapilla, T. nigroviridis, T. heinei, Thraupis virens, T. palmarum, Ramphocelus icteronotus, Habia cristata*; finches, *Saltator atripennis.*

It has been shown in several recent accounts that flowering and fruiting trees and other sources of food, such as swarms of termites, attract many species of birds. Miguel Alvarez del Toro (*Miscelanea Ornithologica,* 1963; pp. 3–5) lists 69 species which visit the flowers of *Combretum farinosum* in Chiapas, México. E. Eisenmann (*Auk*, 78: 636–638, 1961) lists 13 species eating catkins of *Cecropia mexicana* and 17 species at swarms of termites in the Panamá Canal Zone. H. Land (*Wilson Bull.*, 75: 199–200, 1963) reports 20 species feeding on fruits of another melastome tree (*Miconia trinerva*) in eastern Guatemala.

The observations at Queremal are noteworthy mainly because so many species of one genus, *Tangara*, fed on the berries. In all, 9 species, or 10 if the possibly congeneric *Pipraeidea melanonota* is included, fed on the berries in the brief time of my observation.

In addition to these 10 species, 2 species of the related genus *Chlorochrysa* and 7 other species of *Tangara* (*larvata, johannae, palmeri, ruficervix, rufigula, xanthocephala, florida*) were encountered at or below Queremal on the western slopes of the Andes. These small and spectacularly beautiful tanagers differ widely in coloration but have similar foraging habits and are similar morphologically in such features as bill size and body size. Pairs or small groups readily join other birds feeding in fruiting trees. They also wander or join wandering mixed flocks searching for insects; commonly these small tanagers peer underneath limbs in the fashion of Black-and-white Warblers (*Mniotilta varia*), or pick small prey off nearby leaves. The foraging behavior and interspecific interactions of these 19 related species are worthy of intensive study.

Near Queremal the species observed in the melastome trees occupy different habitats to some extent. *Tangara parzudakii* is a species of mossy limbs in the crowns of trees in the cloud forests at 4,500 to 9,700 feet elevation. *T. icterocephala* favors the edges of second growth between 1,600 and 4,500 feet elevation, and *T. gyrola* is commonest in the treetops at similar elevations. Of species centering at the elevation of Queremal, *Pipraeidea melanonota* is commonest in bushy pastures in wet regions while *Tangara ruficapilla* is most frequent in bushy pastures in dry or overgrazed areas. *T. labradorides* is most common in the lower levels of second growth, while *T. arthus* favors the edges of second growth and *T. nigroviridis* the forest edge and crown. *T. heinei* and *T. cyanicollis* favor isolated trees and the edges of groves and second growth. However, the species overlap in their habitats, and move into each others' zones to some extent when a good source of food is available.

Do these species contravene the "competitive exclusion principle," that a species tends to exclude others from its own niche? Probably in these cases fruit is abundant only briefly and in such a quantity that no one species would gain by expending energy to exclude others. The normal habitats may be restricted by the insect portion of these birds' diets. There seems to be no competition, and hence no exclusion, when fruit is superabundant.

It is possible that most foods are like the berries of *Conostegia* in that they are eaten by more than one species and occur irregularly. Food, then, would usually be superabundant when and where it does occur. If most foods are superabundant, the usual statements that superabundant foods are not to be considered in applying the competitive exclusion principle result in a rather extreme restriction of the principle. It may be better to include superabundant foods by stating the principle as an evolutionary tendency which is often held in abeyance or opposed by an "irregularity principle": that is, biological or physical fluctuations create niches which can temporarily be exploited by more than one species, since full exploitation of a niche always lags behind the appearance of the niche. Various species, such as the tanagers at Queremal, may be well suited for exploiting a succession of irregular food supplies. What factors keep the species in somewhat separate habitats but allow them to overlap at Queremal may become evident if the species are studied carefully.

I thank John Wurdack of the U. S. National Herbarium for identifying the melastome. This study was supported by fellowships from the National Science Foundation and the Frank M. Chapman fund of the American Museum of Natural History.—EDWIN O. WILLIS, *American Museum of Natural History, New York, New York.*

Red-winged Blackbirds searching beneath pine bark for insects in winter.—Most observers usually associate the Red-winged Blackbird (*Agelaius phoeniceus*) with open country such as marshes or upland fields and their wooded or brushy borders. On the wintering grounds in the coniferous belt of the southeastern United States, however, Red-wings spend some of their time feeding in pine forests. In the course of a day's feeding they move back and forth between pine woods and harvested fields of corn, peanuts, and cotton, or weed fields. It is not unusual to see Red-wings feeding in a scattering of pine trees at the edge of a marsh or in some upland area, but I was surprised to find them in dense stands of pine and to observe their method of feeding there.

At Burgaw, Pender County, North Carolina, 15 January 1964, at 1345 hours, I encountered a flock of approximately 2,000 male Red-wings feeding in corn stubble.