

This season ordinarily covers the first three weeks in June; June 10 is, generally speaking, near the height of the blossoming period. At this time the young spruces bear, during most years, a light to heavy crop of ovulate strobili containing numerous bract-like carpels which are coated with a waxy or resinous substance that is distinctly sweet to the taste. On many of the carpels this substance forms beads. The coated carpels are eaten avidly by both Red and White-winged Crossbills (*Loxia curvirostra* and *L. leucoptera*), and by Pine Siskins (*Spinus pinus*). These strobili, many of which never ripen into cones, are much more in evidence on young spruces (15 to 25 years old) than on older trees, and they are much more likely to occur annually than are mature cones. It is therefore much easier to estimate crossbill populations during June than at any other time at which I have tried it. I have found Red Crossbills in certain spruce patches during every June for the past five years.

On some of our visits during June, 1940, and again in 1941, Cedar Waxwings (*Bombycilla cedrorum*) were observed feeding habitually on these coated carpels. The crop of one individual collected in the act of feeding was stuffed with the carpels, and the body had the same accumulation of very firm fat which had been observed in the Red Crossbills collected there at that season. Cedar Waxwings have on a number of occasions been observed to feed on the petals of apple blossoms, but this is, so far as I am aware, the first recorded occurrence of their eating red spruce carpels.—MAURICE BROOKS, *Division of Forestry, West Virginia University, Morgantown, West Virginia.*

*Ilex collina* fruits as bird food.—On some of the higher mountains of Virginia and West Virginia there grows a very attractive deciduous holly which has recently been described as *Ilex collina* Alexander. Since this description was published subsequent to the appearance of Van Dersal's "Native Woody Plants of the United States, Their Erosion Control and Wildlife Values" (*U. S. Dept. Agric. Misc. Publ. No. 303, 1938*), there are no food records in that volume referable to this species. Even the largeleaf holly (*I. longipes*), with which the present species was long confused, is without data, so far as its use by wildlife is concerned.

*Ilex collina*, which I have called 'mountain long-stem holly' for want of a better name, is abundant in parts of the Allegheny Plateau, particularly at elevations of 3,000 feet or above. In the Cheat Mountains of West Virginia it occurs to 4,000 feet. During September and October it ripens immense crops of large, pulpy, long-pediceled drupes. Many of these persist on the shrubs until after the first of January; others fall to the ground and are eaten by birds and other animals.

In the winter of 1942-43 a number of trips were made for the purpose of observing the winter use made by animals of these fruits, and autumn observations have been made during several years. Thus far I have observed Ruffed Grouse (*Bonasa umbellus*), Catbirds (*Dumetella carolinensis*), Robins (*Turdus migratorius*), Wood Thrushes (*Hylocichla mustelina*), Olive-backed Thrushes (*H. ustulata*), and Cedar Waxwings (*Bombycilla cedrorum*) feeding on the fruits, and I have excellent evidence that wild Turkeys (*Meleagris gallopavo*) also use them. During a period when snow was on the ground in December, 1942, I visited a number of spots where this holly grew, and found that grouse had been scratching at every one of them, and at one clump a flock of Turkeys had completely trampled the area.

So far as I am aware, this holly is not now commercially available, although it is being propagated from cuttings which I have furnished the Soil Conservation Service. It seems to offer considerable promise as a winter food in Appalachian mountain areas where weather conditions are severe, and where glaze is a constant menace to birds and other wildlife.—MAURICE BROOKS, *Division of Forestry, West Virginia University, Morgantown, West Virginia.*