

## Enemies in Nature

by IRSTON R. BARNES

Many natural history books, in discussing predator-prey, or food-chain relations, sometimes use a verbal shorthand, referring to predators on a species as its natural enemies. The word enemy suggests the need for a continuing critical scrutiny of our nature vocabulary, for words carry false connotations from other fields and influence both our own thinking and our ability to communicate with other people.

If the prey species is a desirable song bird or game bird, as the Bob-white, and the Cooper's Hawk is its "enemy," then those who are for the Bob-white are likely to be against the Cooper's Hawk. Thus a semantics barrier is created to a popular understanding that both the Bob-white and the Cooper's Hawk are equally good citizens of the woods-margin community.

When predators-prey or other natural interspecific relations are seen in true perspective, the enemy concept is clearly inaccurate and inappropriate. Naturalists using the enemy figure of speech mean only some other form of life which dependent in a particular way on the species in question. A robin may die of old age, starvation, disease or the strike of a hawk; yet only the last is causally designated as an enemy. Surely it is not reasonable to prefer the parasite, the maggot or the vulture to the hawk. The robin, if capable of a choice, might prefer the hawk. Nature knows no such preference, but finds opportunities in every form of life to support other life. From such interspecific relations, or food chains, come much of the infinite variety of life which we know.

The robin that eats the worm, the hawk that takes the robin, and the bobcat that sometimes surprises the hawk are not severally the enemies of their respective food supplies. Neither the robin, the hawk nor the bobcat, although it takes the life of

an individual, poses any threat to the species. The hunter takes what is readily available, and when the abundance of one food diminishes, it turns to another food or moves to other hunting grounds. In general, man is the only predator so relentless in his hunting that he extirpates or extinguishes a species.

The true enemies of a species are those life forms, or inanimate forces, which destroy the essential elements of its environment or that by competition drive it from its habitat or from access to food and shelter. Sometimes an introduced species, such as the rabbit in Australia, destroys plant life and alters the nature of a habitat. Sometimes an introduced predator, the mongoose in the Caribbean Islands, finds native species that are unprepared, by powers of escape or by reproductive capacity, to withstand its attack. Sometimes introduced competitors usurp the place of the native species, as has happened with the Hawaiian birds. More often, however, it is the unchecked multiplication of a species in the absence of normal predation that creates the disastrous competition. The deer of the Kaibab Plateau were a prosperous population so long as the mountain lion and wolf preyed on them, but when the predation was removed, the explosion of numbers destroyed the food resources and wholesale starvation resulted. Robins, if unchecked, could be their own destroyers; the hawk is their protector.

Man is the great destroyer of habitats, the great force which by changing the patterns of land use, has brought some species of wildlife to extinction and opened the way for explosive expansions by others. Man is the nearly omnipotent enemy of wildlife; yet even here the word is misleading. Much of the harm that man does is unnecessary, unintentional and unwanted, but this is another subject.

---

(Dr. Barnes is president of the Audubon Society of the District of Columbia. This article appeared first in the November-December 1955 issue of the *Atlantic Naturalist*. We copied it from it from the June 1956 issue of the *Flicker* published by the Minnesota Ornithologists' Union. "Enemies in Nature" may be reproduced in any way so long as credit is given to the author and to the *Atlantic Naturalist*, Box 202, Benjamin Franklin Station, Washington 4, D.C.)