

It is in the technique employed in attaching the eggs to such a surface that *Pimephales* and, in all probability, *Hyborhynchus* also stand unique among the members of their family.

1. R. F. Lord: Notes on the Use of the Black-head Minnow, *Pimephales promelas*, as a

Forage Fish. Trans. A.F.S., Vol. 57, 1927.

2. V. C. Wynne-Edwards: The Breeding Habits of the Black headed Minnow (*Pimephales promelas*). Trans. A.F.S., Vol. 62, 1932.

PEST Vs. PEST

By L. L. SNYDER



THE BALANCE of nature" is a concept very frequently discussed and one which, thought of as a tendency to balance rather than as a state of balance, is a truism. Yet when one wishes to illustrate the point with actual examples, it seems that recorded cases are rather uncommon in the literature. Generalized and more or less theoretical discussions seem more prevalent. The following observation is, therefore, a very small contribution to the literature on particular instances.

We have in Toronto a lawn weed known as Knotweed, *Polygonum aviculare*, which is at all times common. Reference to Gray's *New Manual of Botany* reveals that this plant is stated to be "common everywhere in yards, waste places etc." and that it is of Eurasian origin. This can only be interpreted as meaning an extremely wide distribution.

During the season of growth of any year, this plant is a strong competitor of lawn grass. During the past summer (1934), Knotweed was in the ascendancy. The winter of 1933-34 was notably severe and turf or lawn grass suffered conspicuous losses in lawn and park. Extensive blotches of earth where the grass had been winter-killed were much more obvious than after a normal winter. These blotches were, however, gradually erased as the summer growth progressed and their greenness deceived the eye, except that of the expert gardener, until autumn came. Then by degrees the outlines of the winter-killed areas were made apparent again, this time by the warm reddish tint of the overgrowth. The colour was due to the tinted wiry stems of the branching Knotweed which had flourished exceedingly.

The tiny seeds produced by this plant in any city park, if obtainable, could have been measured by bushel units. It appalls a struggling lawn-keeper to think of the possible war with this

weed with its bushels of seed ammunition. Personal experience has taught the writer that only a dentist-like extraction of the long and well-set tap-root is feasible for the eradication of the weed, and, at a guess, it seems that every seed is capable of germination. It is then with some pleasure that the second part of this account has been observed.

The writer's daily route has afforded considerable regularity in observing certain areas conspicuously affected by Knotweed. Starting with his own lawn and a small park adjacent, thence across Ramsden Park and to the Museum, about which are the extensive lawns of Queen's Park and the University Campus, sufficient space is covered to demonstrate that conditions are not localized. From early October to November the Knotweed patches were the feeding areas of flocks of English Sparrows (*Passer domesticus*). Several days passed before it was realized that these birds were invariably associated with the dark blotches in the turf. The flocks were merely noted as being unusually large and compact, in fact, it has been suggested that this is a "sparrow year" since they are markedly more conspicuous. The writer is inclined to believe from meagre data that such is the case; that there are more English sparrows during this fall than there have been for a few years past.* However, their concentration in conspicuous open lawn areas no doubt exaggerates their numbers.

At the time of writing, November 14, sparrows are still to be seen regularly visiting the Knotweed patches but this food supply is rapidly disappearing. An examination of several of these areas discloses the fact that the bare skeletons of the whorls of stalks are about all that remain; the seeds are gone and only an occasional tiny leaf is visible. It is quite clear that the bumper crop has already been consumed

*It is unfortunate that the English Sparrow is rather generally ignored in daily bird lists.

and that, although the weed is not annihilated, an apparently effective check has been placed on the spread of the Knotweed. An Old World form has been pitted against an Old World form in what is perhaps an age old relationship.

In conclusion, one might add this question: what proportion of these seeds, if any, are capable of resisting digestion and are subsequently distributed into other "yards and waste places everywhere", to grow more Knotweed to feed more English Sparrows?

SWIMMING HABITS OF MAMMALS

By STUART L. THOMPSON



OMETIMES a very simple action on the part of an animal leads one to an interesting train of thought and speculation.

On September 1st, 1933, while crossing Belmont Lake in a canoe with my nephew, we came in sight of a black squirrel swimming from a large island to the mainland. The animal was perhaps 200 yards out from the island and had some 500 or 600 yards yet to go to reach the opposite shore. As we hove in sight he turned in his course abruptly and struck out, retracing his steps — or more properly his strokes, — with the evident intention of regaining the island which he had left. I was curious to see him in action while swimming, so we brought the canoe up broadside in his way. He at once swam round it. Again we tried, with the same result. Evidently nothing would stop him in his efforts to gain the shore. It occurred to me to see what he would do if he were brought on board. So the next time we closed on him I reached out a friendly hand to lift him in. He at once bit my finger severely, scrambled up my sleeve, leaped into the canoe, looking like a "drowned rat", ran the length of the canoe plunged into the water and struck out for the shore, which he reached, and then disappeared in the woods.

I recall other experiences with other mammals, *viz.*: surprising them while swimming. Several times on canoe-trips I have come upon deer swimming and, in all cases, the animal kept a straight course, which became long dashing bounds when its feet found bottom, until it reached the opposite shore. There was no attempt to return.

On another occasion we ran down a wood-chuck swimming in the Otonabee River, evidently making for the other side. This animal accepted help and was lifted into the canoe on the paddle blade and coolly settled down to rest

on the pack between us. When we came near land, although far on down the river from where he would have originally landed, he simply flopped overboard (with nary a word of thanks) and swam the few strokes to the bank.

It is interesting to compare the actions and behaviour of these three creatures. The determined attempt of the deer for example, — an active animal which ranges widely. It would seem he knew exactly where he was going, having been there before. When surprised he had only one thought — to gain his objective, which was probably as familiar ground as that which he had left. Most likely the wood-chuck was in the same position, although it might be that he was on a voyage of discovery and found he had ventured on more than he contemplated; the river was wider than he had suspected. Being caught in such a fix he made the best of a bad job and was glad to accept a lift, though I can hardly believe that, with wood-chuck mentality, he actually thought this out.

In the case of the squirrel — an active venturesome little animal, it would seem he felt himself surprised, utterly out of his element, consequently at a hopeless disadvantage, and not knowing what the opposite shore had in store for him, he felt instinctively that the best thing to do was to get back to familiar ground again, — the land he knew, — at all costs and with all possible speed — nor would he accept a lift but fought for freedom.

I trust I am not investing these three mammals with attributes too human, but it is certainly interesting to reflect on the different reactions noted above. Not long ago an article appeared in a periodical, dealing with human psychology, especially during panics in a fire-scare at a public meeting. The writer pointed out that the one thought in every panic-stricken mind was to get out, and that "out" was the way he came in, *i.e.* the familiar way. Very few people, the



Snyder, L. L. 1937. "Pest vs. Pest." *The Canadian field-naturalist* 51(1), 4–5.
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