

DEATH SENTENCES

By Blind Judges and
Deaf Juries (By Waiaatua.)

BIOLOGISTS and ecologists are revolting, in ever-increasing degree, against the passing of death sentence on any animal species the case against which is incomplete.

A complete case against the New Zealand shag would require, among other things, proof by anglers that the shag destroys more trout, by eating them, than the trout he saves by eating eels. The anglers have no such proof.

A complete case against the New Zealand hawk would require, among other things, proof by gunners that the hawk destroys more game birds by eating them than the game birds he saves by eating their enemies. The gunners have no such proof.

HARES AS FORESTERS.

If it were possible to appeal from the anglers and the gunners to a court of science for review of the convictions and death sentences passed on the shag and the hawk, the court of science would find the case not proven; and it might possibly recommend the anglers and the gunners to read the following statement by Edward H. Graham, biologist of the United States Soil Conservation Service, on the place that the much-abused hare occupies in forestry operations in parts of the United States:—

"The snowshoe hare of our Lake States is often blindly charged with intolerable injury to young trees. This is especially true on clean-cut or burnt-over areas where natural reproduction (of trees) results in very thick stands. Now the hare is a highly cyclic species, with 'highs' of large populations occurring at ten-year intervals. When the hare population is at its peak, the animals eat, girdle, or prune the young trees until the stand is so open that the hares may be easily seen by predatory mammals, owls and hawks. The hares must then retreat to thicker stands for protection. They may return at intervals of a few years whenever the trees have again thickened enough to form protective cover, and may thin out the stand recurrently until the bark becomes too thick to be palatable. Instead of being an unmitigated evil, however, the opening of the stand in each case permits the remaining trees to recover from their stunted

condition, helps to reduce the fire hazard, and minimises insect damage. In northern Minnesota the value of the thinning operations of the snowshoe hare is set at a high figure."

It should be added here that the snowshoe hare is indigenous to North America; and Mr. Graham's finding concerning this particular hare would not necessarily apply to any hare or other creature that had been imported. Between the native and the imported, biologists generally find it necessary to draw a definite line.

NO INDEPENDENT BIOLOGIST.

Many generations of foresters in America have failed to value at a high figure the thinning operations of the snowshoe hare, and many generations of anglers and gunners have failed to value at a high figure the thinning operations of shags and hawks, which always take the weakest victims first, and which prey not only on game but on game-enemies. The reproof handed out to American foresters by an American biologist like Edward H. Graham might also be handed out to anglers and gunners by a biologist of similar capacity and independence—if New Zealand possessed one. The lack of an independent ecological biologist is very serious in this country. Scientific societies composed of Civil Servants who are forced to consider departmental interests are a poor substitute.

The Court of Science to which reference is made above (imaginatively, of course) would be a misnomer if the word "Science" were interpreted on narrow conventional lines, as is usual. Graham, in the article quoted above, deals mainly with ecology, and he writes: "In a broad sense, ecology is much more a process of thought than a science. To think ecologically requires only a knowledge of facts and an ability to relate them correctly."

Ecology despises blind adhesion to conventional rules. Example: The gardener, in his weeding operations, removes the weeds from a shade-loving species, which therefore nearly dies. The gardener, after one or two experiences of this sort, leaves a little oasis of weeds in the long sweep of his border, and beneath