

Our own interest lay in relationships of animal to animal. If one observes in this relational sense, it seems apparent that species are only commas in a sentence, that each species is at once the point and the base of a pyramid, that all life is relational to the point where an Einsteinian relativity seems to emerge. And then not only the meaning but the feeling about species grows misty. One merges into another, groups melt into ecological groups until the time when what we know as life meets and enters what we think of as non-life: barnacle and rock, rock and earth, earth and tree, tree and rain and air. And the units nestle into the whole and are inseparable from it. Then one can come back to the microscope and the tide pool and the aquarium. But the little animals are found to be changed, no longer set apart and alone. And it is a strange thing that most of the feeling we call religious, most of the mystical out-crying which is one of the most prized and used and desired reactions of our species, is really the understanding and the attempt to say that man is related to the whole thing, related inextricably to all reality, known and unknowable. This is a simple thing to say, but the profound feeling of it made a Jesus, a St. Augustine, a St. Francis, a Roger Bacon, a Charles Darwin, and an Einstein. Each of them in his own tempo and with his own voice discovered and reaffirmed with astonishment the knowledge that all things are one thing and that one thing is all things—plankton, a shimmering phosphorescence on the sea and the spinning planets and an expanding universe, all bound together by the elastic string of time. It is advisable to look from the tide pool to the stars and then back to the tide pool again.

Harvard man, a Yale man, a Stanford man—that is, the ideal—is as easily recognized as a tuna, and he has, by a process of elimination, survived the tests against idiocy and brilliance. Even in physical matters the standard is maintained until it is impossible, from speech, clothing, haircuts, posture, or state of mind, to tell one of these units of his school from another. In this connection it would be interesting to know whether the general collectivization of human society might not have the same effect. Factory mass production, for example, requires that every man conform to the tempo of the whole. The slow must be speeded up or eliminated, the fast slowed down. In a thoroughly collectivized state, mediocre efficiency might be very great, but only through the complete elimination of the swift, the clever, and the intelligent, as well as the incompetent. Truly collective man might in fact abandon his versatility. Among school animals there is little defense technique except head-long flight. Such species depend for survival chiefly on tremendous reproduction. The great loss of eggs and young to predators is the safety of the school, for it depends for its existence on the law of probability that out of a great many which start some will finish.

It is interesting and probably not at all important to note that when a human state is attempting collectivization, one of the first steps is a frantic call by the leaders for an increased birth rate—replacement parts in a shoddy and mediocre machine.

Our interest had been from the first in the common animals and their associations, and we had not looked for rarities. But it was becoming apparent that we were taking a number of new and unknown species. Actually, more than fifty species undescribed at the time of capture will have been taken. These will later have been examined, classified, described, and named by specialists. Some of them may not be determined for years, for it is one of the little by-products of the war that scientific men are cut off from one another. A Danish specialist in one field is unable to correspond with his colleague in California. Thus some of these new animals

may not be named for a long time. We have listed in the Appendix those already specified and indicated in so far as possible those which have not been worked on by specialists.

Dr. Rolph Bolin, ichthyologist at the Hopkins Marine Station, found in our collection what we thought to be a new species of commensal fish which lives in the anus of a cucumber, flipping in and out, possibly feeding on the feces of the host but more likely merely hiding in the anus from possible enemies. This fish later turned out to be an already named species, but, carrying on the ancient and disreputable tradition of biologists, we had hoped to call it by the euphemistic name *Proctophilus winchellii*.

There are some marine biologists whose chief interest is in the rarity, the seldom seen and unnamed animal. These are often wealthy amateurs, some of whom have been suspected of wishing to tack their names on unsuspecting and unresponsive invertebrates. The passion for immortality at the expense of a little beast must be very great. Such collectors should to a certain extent be regarded as in the same class with those philatelists who achieve a great emotional stimulation from an unusual number of perforations or a misprinted stamp. The rare animal may be of individual interest, but he is unlikely to be of much consequence in any ecological picture. The common, known, multitudinous animals, the red pelagic lobsters which litter the sea, the hermit crabs in their billions, scavengers of the tide pools, would by their removal affect the entire region in widening circles. The disappearance of plankton, although the components are microscopic, would probably in a short time eliminate every living thing in the sea and change the whole of man's life, if it did not through a seismic disturbance of balance eliminate all life on the globe. For these little animals, in their incalculable numbers, are probably the base food supply of the world. But the extinction of one of the rare animals, so avidly sought and caught and named, would probably go unnoticed in the cellular world.