winter and continue their development in the succeeding growth season;" and, later on:

Within the families *Saxifragaceae, Caryophyllaceas, Cruciferae,* and *Rosaceae* we find the most pronounced power of resistance in floral organs in a fairly advanced phase of development, associated with different degrees of aperiodicity. In accordanee with this, the flowers of the early spring are essentially constituted by these families. The only species within these families—and within the flora of Northeast Greenland as a whole—in which floral and fructifying organs in any stage of development have been found to be capable of wintering without suffering any damage, and of continuing and completing the development after wintering, is *Braya humilis.* And it is not only capable of doing so, but the phenomenon occurs so frequently that it may be recorded as normal to the species.

Such plants are probably well covered with snow in winter (*10*). Sørensen suggests that *"Braya Thorild-Wulffii* and *Draba crassifolia* evidently possess a power of wintering in highly developed stages similar to that of *Braya humilis,"* but emphasized again in his "Results and Conclusions" that "The only species in which all the floral and fructificative stages have been found with certainty to continue their development entirely uninjured after the wintering is *Braya humilis."* This species is widespread in Alaska, although apparently it is not known from the vicinity of Point Barrow. It would be interesting to determine whether its behavior is similar in the Territory, and whether other species are able to emulate its feat, even if *Cochlearia* cannot.

NICHOLAS POLUNIN
Gray Herbarium of Harvard University
Cambridge, Massachusetts

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Northernmost Record of the Whale Shark

Rhineodon typus, the greatest of the sharks (av length, 30–40 ft, but reaching to about 60 ft), is a fish native to the three tropical oceans, from which it does not depart except in such outflowing warm currents as the Gulf Stream. In the western Atlantic it is found especially in the Caribbean Sea–West Indies region, in the Gulf of Mexico, among the Florida Keys, in the Straits of Florida, particularly in the region of Havana, and also between Florida and the Bahamas. Until quite recently it had never been noted above the southern tip of Florida, although a dead one came ashore at Ormond, just above Daytona, in 1902. This is the earliest record in Florida waters and, indeed, in the western Atlantic. A specimen was later captured off Miami in 1932, however, and others were noted off the Bahamas some time later (in the Gulf Stream). But, up to 1934, no whale shark had ever been reported from the Atlantic coast of Florida above Miami (25° 46′ N Lat.).

On June 6, 1934, a message was received at the State Museum in Raleigh, N. C., that a whale shark was ashore in Southport Harbor, 4 miles above the mouth of the Cape Fear River, 320 miles farther north than Ormond.[1] H. H. Brimley, of the North Carolina State Museum, set out at once for Southport to obtain the skin if possible, but he reached there only to find that the 50-ft specimen had unfortunately been almost dismembered, so that the skin could not be preserved. This specimen is the first to be put on record on the western Atlantic coast of the U. S. north of southern Florida. The latitude of the locality is about 33° 55′ N. Mr. Brimley put this specimen on record in the *Journal of the Elisha Mitchell Scientific Society* (Aug. 1935). But this record was not due to stand long.

On August 9, 1935, a 31.5-ft Rhineodon blundered into a pound net off Fire Island at Lat. 40° 35′ N and was captured—a second capture north of Florida and 460 miles north of the Cape Fear River occurrence. The full story of this capture and all the records thereof may be found in an article entitled "Rhineodon at New York's Front Door" (Gudger, *Natural History Mag.* [Feb. 1936]).

It was brought into Islip on the southern shore of Long Island, and there I saw it on the floor of a fish-house. It was 31.5 ft long, 4 in. less than 4 ft across the inside of the mouth from angle to angle of jaws, and the spread of the lunate tail was 9 ft. It was truly colossal, the most gigantic thing I had ever seen come out of the sea.

Carried to Fire Island by the Gulf Stream to a parallel of latitude almost touching the southwest corner of New England, it would surely be Rhineodon's "Farthest North" in the western Atlantic. But again this record has been broken.

In the New York *Times* of June 6, 1951, there is a four-paragraph note entitled "Liner *Veendam* Attacked by Whale Shark at Sea"—345 miles off Nantucket Light. But the title is erroneous. The *Veendam,* steaming into a small school of whale sharks, collided with a Rhineodon lumbering across the track of the incoming steamer and broke its back. This great shark was rammed by the steamer in about Lat. 42° 02′ N, Long. 62° 50′ W. This is about the latitude of Cape Cod, Mass., and 380 miles due east thereof, and is 1284 miles (18° 35′ of Lat.) north of the Tropic of Cancer and of the waters between Florida and Cuba. This occurrence is the whale shark's northernmost ob-

[1] Distances are given in statute miles.

served venture, not only in the Atlantic but also in any ocean. It was undoubtedly carried there by the Gulf Stream, and it should be noted that the date is June 5, at the beginning of summer.

E. W. GUDGER[2]

American Museum of Natural History
New York

[2] I am grateful to J. M. Fewell, of the U. S. Hydrographic Office, for reading the manuscript of this article and for supplying latitudes and mileages.

Experimental Hypersensitivity

THE mechanism originally proposed by Longcope (*1*) for the course of the experimental hypersensitivity produced by the injection of large quantities of foreign serum proteins into an animal is the following: (*a*) a localization of a portion of these antigenic proteins in the tissues of the animal, (*b*) the formation of antibodies to the protein, and (*c*) the reaction of the antibody with the antigen localized in the tissue.

Hawn and Janeway (*2*), Ehrich, Seifter, and Forman (*3*), and Wissler, Smull, and Lesh (*4*) have reported that lesions were produced in different organs in rabbits, depending upon which protein fraction of the foreign serum was injected. The first two groups of authors suggest that the different lesions are probably a reflection of selective localizations of different proteins in the various tissues of the body. Wissler *et al.*, however, claim on the basis of unpublished experiments to have "shown no evident selective localization of labeled horse serum in the tissues of normal or sensitized rabbits." Latta (*5*), also, was not able to show any such selective localization of radioiodinated bovine serum globulin or human serum albumin; but, as Latta claimed, his experiments were not conclusive because of the high backgrounds of the residual blood radioactivity, which would obliterate any small differential localization in individual organs. Coons, Leduc, and Kaplan (*6*) showed that bovine serum albumin was removed more rapidly from the tissues of a mouse than was human γ globulin, but the relative retention in each organ was the same for the two proteins.

We have carried out experiments (*7*) which do show that the different proteins of a protein mixture (in this case a crude globulin fraction of normal rabbit serum) localize differently in the various organs of the rat. This was demonstrated by iodinating the globulin fraction of normal rabbit serum with iodine containing traces of the radioactive I^{131} and injecting it into rats. Three days later the rats were sacrificed, the organs perfused, and the radioiodinated proteins that remained there eluted at pH 10–11. Upon injection of these recovered proteins into rats, it was found that the material recovered from the liver localized to a greater extent in the liver than in the kidney, and the material recovered from the kidney localized preferentially in the kidney.

The preferential localization of components of the original protein mixture demonstrated in these assays supports the hypothesis of Hawn and Janeway and of Ehrich *et al.* in demonstrating that different serum proteins do localize selectively in different tissues. Just which proteins favor which tissues is not defined by our experiment, and it may be that components present in only low concentration in serum are responsible for the localizations that we observed with the normal serum.

DAVID PRESSMAN
LEONHARD KORNGOLD

The Sloan-Kettering Institute for Cancer Research
New York

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Zoological Nomenclature

NOTICE is hereby given that, as from January 23, 1953, the International Commission on Zoological Nomenclature will start to vote on the following cases involving the possible use of its plenary powers for the purposes specified in brackets against each entry. Full particulars of these cases were published on July 23, 1952, in the *Bulletin of Zoological Nomenclature*, those relating to cases (1) to (4) in Part 8 and those relating to cases (5) to (10) in Part 9 of Vol. 6. (1) *Ancylus* Müller, 1774 (Cl. Gastropoda) [designation of type species]; (2) *atrox* Baird & Girard, 1853, *Crotalus* (Cl. Reptilia, Order Squamata) [validation]; (3) *polysticta* Cope, 1865, *Caudisona* (Cl. Reptilia, Ord. Squamata) [validation]; (4) *Palaeopsylla* Wagner, 1903 (Cl. Insecta, Ord. Siphonaptera) [designation of type species]; (5) *Heterandria* Agassiz, 1853 (Cl. Osteichthyes) [designation of type species]; (6) *Lobocantha* Kirby, 1837 (Cl. Insecta, Ord. Coleoptera) [suppression, to validate *Platypria* Guerin, 1840]; (7) *tereticauda* Eschscholtz, 1833, *Triton* (Cl. Amphibia) [suppression, to validate *lugubris* Hallowell, 1849, *Salamandra*]; (8) *Euryrhynchus* Miers, 1877 (Cl. Crustacea, Ord. Decapoda) [validation]; (9) *Pontonia* Latreille, 1829 (Cl. Crustacea, Ord. Decapoda) [designation of type species]; (10) Martyn, 1784, *Universal Conchologist* (Ph. Mollusca) [validation of following trivial names published in *arabicum, canaliculus, crenata, denticulata, granosus, haustrum, heliotropum, iris, linea, maculosum, opalus, papulosum, punctulatus, purpurata, smaragdus, sulcatus, tigris, vermis.*] Comments on the above cases should be sent as soon as possible to the secretary.

FRANCIS HEMMING, *Secretary*
International Commission on
Zoological Nomenclature
28 Park Village East, Regent's Park
London, N.W. 1, England