Mineral matter to the extent of about a dozen grains of sand.

The food in the stomach and crop was very well preserved and it was possible to identify with certainty some of the animals to species —a condition which also obtained rather unexpectedly for a portion of the food in the gizzard, particularly the fresh-water "shrimps." The question arises: How many of these animals were deliberately pursued by the duck? As far as the vertebrates are concerned, there is no doubt but that they were voluntarily taken. The presence of only a small amount of vegetable matter favors a like assumption for all of the invertebrates mentioned, forms which at this time of year occur almost exclusively in the aquatic vegetation. If they were accidentally taken, it would necessarily have been incidental to a large amount of vegetable material.

The beetles and water-boatmen are erratic and rather rapid swimmers and in all probability would have escaped unless deliberately chased by the duck. The disagreeable acrid odor given off by the former evidently did not protect them to any great degree from the bird.

In all of the unbroken molluscan shells the soft parts of the animals were preserved, indicating that the animals were picked off from the vegetation alive.

The surprisingly large number of fresh-water "shrimps," in view of their great ability to conceal themselves under shelter of almost any sort, shows without a doubt that they were voluntarily taken; it also gives a further indication of the importance of this group of crustacea in the economy of water-loving vertebrates.

If our assumption is correct that all of these swiftly moving and self-concealing animals were taken voluntarily, we have an example of a keenness of vision capable of discriminating between food and other substances to a degree not usually ascribed to the flat-billed ducks.

G. C. EMBODY

CORNELL UNIVERSITY

A LARGE SPERM WHALE CAPTURED IN TEXAS WATERS[1]

THE capture on our coasts of a whale of any species is a rare occurrence and worthy of note. The present instance therefore seems to me to deserve some especial attention.

On March 10 of the present year I received a telegram from Port Arthur, Texas, informing me of the capture of a huge sperm whale near Sabine, a small town on the gulf, and offering me every opportunity for making a scientific examination of the prize.

The following day I went down to Port Arthur and found that the animal had suffocated in the mud shallows and had been towed ashore. On my arrival the carcass was on exhibition on a board platform back of one of the docks. Owing to the heat, decomposition had already set in and hence no opportunity was afforded of securing histological material. I availed myself, however, of the opportunity of taking a careful series of measurements, which I here put on record. This seems worth while, since there are few, if any, authentic measurements of large whales to be found in the literature.

	Ft.	In
Total length (air line from tip of snout to extremity of tail flanges)	63	6
Circumference in front of pectoral fins	37	
Width across tail flanges	16	7
Tip of snout to base of pectoral fin	24	6
Tip of snout to angle of mouth	17	1
Dorso-ventral diameter of flat end of snout	10	4
Tip of lower jaw to angle of mouth	10	10

There were 48 teeth in the lower jaw, each of which fitted into a fleshy depression of the upper jaw, which was toothless except for the occasional presence of very small rudimentary tooth-like structures in the bottoms of these depressions.

On the night of March 12 the animal was eviscerated, with the aid of a gang of about twenty negroes and a steam winch, and the abdominal cavity filled with ice. This was dissection on a large scale and afforded a

[1] Contribution from the Zoological Laboratories, University of Texas, No. 104.

unique experience. Nothing of especial note, however, was brought to light.

The whale was evidently an aged "bull" that had been driven from the "herd" by the younger males, had led a "maverick" existence for some time and had strayed far from his native haunts. It is probable that he had met his fate through an ill-advised pursuit of a school of cuttle-fish or squids into a shallow bay, where he became stranded in soft black mud, which soon filled his lungs and literally drowned him.

I have been able to find no previous record of a sperm whale coming ashore on the Gulf of Mexico. If there are other cases I should be glad to learn of them.

H. H. NEWMAN

AUSTIN, TEXAS

THE AMERICAN ASSOCIATION FOR THE ADVANCEMENT OF SCIENCE

SECTION G—BOTANY, BOSTON MEETING

As in previous years, Section G held its sessions in alternation with the Botanical Society of America. At Boston a further system of interlocking was made necessary by the program of the newly organized American Phytopathological Society, but it was found by making mutual concessions that conflict of programs could be reduced to a minimum. One joint session was held with the American Phytopathological Society. In the enforced absence of Vice-president Penhallow on account of illness, Dr. B. M. Davis, of Cambridge, was selected vice-president pro tem. The address of the retiring vice-president, Professor H. M. Richards, entitled "On the Nature of Response to Chemical Stimulation," has been published in full in SCIENCE. This address was followed by a symposium on botanical gardens, participated in by William Trelease, N. L. Britton, W. F. Ganong, D. S. Johnson and A. F. Blakeslee; it is expected that this symposium will be published in full in SCIENCE.

The following officers were chosen:

Vice-president—Professor R. A. Harper.

Member of the Council—Professor A. D. Selby.

Member of the Sectional Committee (five years)—Professor H. M. Richards.

Member of the General Committee—Professor G. F. Atkinson.

Abstracts of the technical papers follow.

Further Observations on the Nature of the Fertile Spike in Ophioglossaceæ: M. A. CHRYSLER.

The writer's view as to the morphological nature of the fertile spike in Ophioglossaceæ, derived from an anatomical study, receives striking confirmation from certain specimens of *Botrychium obliquum* collected in New Hampshire. These bear either a pair of fertile spikes in place of the normal one, or a pair in addition to the normal one and inserted above it. The vascular supply of the pair of spikes indicates that they represent a pair of fertile leaflets, and the single spike represents a fused basal pair of fertile leaflets. In some cases the two spikes of the pair are fused for part of their length, and in other cases part of the ordinarily sterile segment is fertile. These facts in connection with other considerations lead to the conclusion that the fertile spike of *Botrychium* and *Ophioglossum* represents two fused basal pinnæ of a fern leaf.

Change of Sex in Humulus Lupulus not due to Traumatism: W. W. STOCKBERGER.

The bisexual inflorescence of *Humulus Lupulus* L. was the subject of a brief paper read by the writer before the Botanical Society of America at the Chicago meeting in 1907–8. Since that time some experiments have been performed and data from other sources collected which tend to refute the theory that traumatism is the cause of this abnormality. Removal of the tap root, severe pruning, removal of portions of the crown and cutting back the vines after they had attained a length of four to six feet all failed to cause any change in the normal production of the flowers.

Further, the experiments show that a plant which once produces the abnormal type of inflorescence will continue to do so through successive seasons and will transmit this tendency to its asexual progeny. So far as observation goes, it appears that only plants bearing pistillate flowers are subject to reversal of sex. In an experimental plot of 1,400 seedlings all the plants were apparently normal at first and bore either staminate or pistillate flowers respectively. Later in the summer some of the plants bearing pistillate flowers developed staminate flowers also. Since none of these plants were subjected to the vigorous traumatic treatment described above it is held that some factor other than traumatism produces the sex reversal.

The Taxonomic Value of the Cephalodia in Certain Species of Stereocaulon: LINCOLN W. RIDDLE.

Stereocaulon paschale (L.) Ach. and *S. tomentosum* Fr. have been separated hitherto chiefly by