golden-yellow or orange of its flowers is visible for miles. When the sun is shining full upon it, it is too dazzling for the eye. In places where the ground was plowed paths of it had been left, and they seemed like tongues of fire running over the ground. Among other showy plants are *Sidalcea malvæflora,* with large purple flowers; *Platystemon californicus,* called cream-cups; *Dodecathon meadia; Bœria gracilis,* a composite with bright yellow flowers, covering acres of ground; *Pœonia brownii,* in tufts, with large purple or reddish flowers; various species of *Gillia, Pentstemon, Lobelia, Phacelia, Nemophila,* together with *Clarkia, Salvia, Castilleia, Convolvulus,* and *Colochortus,* making up such a wealth of color as is rarely seen elsewhere.

THE CONCH FISHERIES OF THE BAHAMAS.

BY W. H. WEED.

Conch fishing in the Bahama Islands is quite an extensive industry. There are about 500 vessels engaged in this and the sponge and turtle fisheries. Most of these from time to time engage in conch fishing according to the demand for the shells.

The vessels employed are either sloops or small schooners, and carry from three to ten men, most of them of the "colored persuasion." These negroes are expert divers and swimmers, being accustomed to the water from childhood. They enjoy the distinction of being perfectly fearless, even in the presence of that dreaded enemy of divers, the shark, who is found in abundance in these waters. It is a current saying in Nassau, when a stranger asks if the negroes are not afraid of sharks, that "a shark will not attack a nigger." The men usually work on shares, and their reward being thus dependent upon their own exertion, each one spurs the others at their work; they all labor with more energy than is usually characteristic of their race in this climate. The conch, which is like an enormous snail, is found in the shallow waters of this vicinity, the sea bottom of the numerous shoals being a favorite place for them. The larger crews work in parties of two, three, or four, in separate boats and independent of each other.

In order to locate the position of the fish they use what is called a "water glass." This is a rectangular water-tight box about thirty inches long, with one end a foot square, and closed by a pane of ordinary glass. The other end is slightly larger and is open. In using the "glass" the closed end is immersed in the water a few inches below the surface, when the sea bottom is distinctly visible through the glass, the water being clear as crystal.

Having discovered the position of the conch the diver leaps in and obtains it, and in a few moments is back in the boat looking for more. Some of the fishermen use a double pronged hook attached to a long staff, such as is used in sponging, and with this secure the conch instead of by diving.

When a boat load is secured the conchs are taken ashore to some convenient beach and left to die. When dead the shells are beaten against the soft sand, which loosens the flesh so it may be easily removed.

The meat of the pink conch is carefully examined for pearls, but the other varieties have no pearls.

The shells of the pink conch are scraped to remove the seaweed, serpulæ, or other incrustation, but the others are naturally pretty clean and are sold in the rough state.

The length of the cruise varies, of course, but the usual time is three or four weeks. On the return to Nassau the shells are sold to the conch dealers or merchants, who sort and pack them for shipment. The finer specimens are packed in cases with sponge clippings, but the ordinary kinds are packed in bulk or shipped loose.

Most of the exports are to England and the United States, though France takes a good many from English consignees.

The four varieties of conch which form the basis for this industry are the common or pink conch, the milk conch, and the king and queen conchs. The first, the *Strombus gigas,* is the most common, and is the well-known conch used for ornamental purposes. It is also the same formerly used for the dinner horn by many old farmers; indeed, it still does good service in that line in the far West.

The flesh of the animal is edible, making, when cooked and properly dressed, a very fair salad, as the writer can testify from experience.

The shell is used for turning into sleeve buttons and brooches, much in vogue in Naples, Italy, but for some unknown reason they do not take well in the United States. Exquisite pink cameos are cut from this shell, and are often mistaken for coral by novices.

Many tons of this shell are also used in the porcelain manufactories of France and Germany.

The milk conch is also one of the strombs and is much smaller than the pink conch. The name is derived from the milk-white color of its interior. The shell is much less fragile than the other species, and it is used in the United States for ornamental purposes.

The queen (*Cassis madagascariensis*) is a much more valuable shell than the preceding varieties. Its flat face is egg shaped and of a handsome salmon red color, being of a beautiful brownish black near the teeth. The shell of this and the king conch is very valuable in cameo cutting, and are much used for this purpose in England and France.

The king conch is of the same species as the queen, but it differs somewhat from it in having a triangular face of a brownish yellow, and the interior of the shell and around the teeth is of a purple black.

Several very handsome specimens with cameos cut in the shell may be seen in the Bethnal Museum, London, and at the American Museum of Natural History in New York.

The pearls taken from under the apron of the pink conch are either pink, yellow, or black. The pink are, however, the only valuable kind. These are of that exquisite shade of pink which gives the name to the conch from which they are taken. Many of the pearls are beautifully water lined, and this, together with their size and color, determines their worth. The lucky fisherman who has any of these pearls for sale finds a ready market for them in Nassau, where the buyers offer very good prices for the pearls, £20, or $100, is not a very unusual price, though the majority of the pearls bring a very much lower figure, of course.

The buyers export them to England, where the demand is good. They may be seen in London set in all sorts of ways, the favorite being in the form of rings, which can be bought from £2 up.

The value of the pearls annually exported from Nassau was recently estimated at £10,000, or $50,000.

The value of the different conch shells in New York is, for the pink conch, $4 per one hundred shells; milk conch, $6.50; king conch, $?5; queen conch, $20.

NATURAL HISTORY NOTES.

Old Seeds versus New.—There is a widespread impression that old seeds of many plants are preferable to new, especially in the production of double flowers. Desirous of putting his view to the test, an experimenter, whose results are recorded in a recent number of the *Revue Horticole,* undertook a series of experiments with the seeds of the camellia-flowered balsams of varying age. The conclusion arrived at—diametrically opposite to the generally received opinion—is that it is the youngest seeds which give the largest proportion of double flowers.

The Potato Grafted on the Bitter Sweet.—An experiment has been performed by M. Lambotte, the record of which, together with an illustrative woodcut, may be found in a recent number of the *Revue Horticole.* M. Lambotte tells us that in the spring of the year, while picking out some potatoes for culinary purposes, he remarked one sprouting and more fit for planting than for cooking. He had at the time, close at hand, a plant of the bitter sweet (*Solanum dulcamara*), the stem of which he cut to a sloping point, which he introduced into a hole in the potato as deftly as possible. Some days afterward the potato had regained its hardness and speedily sprouted from the eyes, the principal stem measuring more than sixty centimeters. The tuber became green, excessively hard, and developed little shoots bearing smaller tubers and rootlets. In point of fact there was a tuber growing in the same manner as it would in the ground, and only differing from an ordinary tuber in its hard consistence. Things went on in this manner till the end of September, when suddenly the leaves withered and the shoots became pendent, and the tuber gradually became soft and decomposed after its ten months' sojourn on the stem of the bitter sweet, the latter continuing its growth in the ordinary manner, unaffected by the fate of its quondam associate.

The Eggs of the Great Auk.—The numerous bones of the great auk found on the shores of Greenland, Newfoundland, Iceland, and Norway attest the former great abundance of this bird, but within the last century it has gradually become more and more scarce, and is now believed to be extinct, none having been seen or heard of alive since 1844, when two were taken near Iceland. There are but three specimens in the United States—one in the Academy of Natural Sciences at Philadelphia, one in the Smithsonian Institution, and one in the Cabinet of Vassar College. The last is the most perfect specimen, and possesses the greatest historical value, as it is the one from which Audubon made his drawing and description. The eggs of this extinct bird are also extremely rare, and it is, therefore, interesting to learn that two specimens have been recently discovered in an old private collection in Edinburgh and sold at auction. The prices realized on these two rarities were $560 and $500 respectively. The purchaser was Lord Lilford.

A Case of Apparent Insectivorism.—Professor Baillon, at a recent meeting of the Linnæan Society of Paris, read the following notes on the apparent insectivorism of a plant often seen in cultivation, *Peperomia avifolia,* of which the variety *Argyreia* is cultivated in so many greenhouses, has the leaves more or less deeply peltate. I have seen stalks on which the peltation on certain leaves was so exaggerated as to show on cross section a depth of nearly four centimeters. When the concave stalks take a suitable direction, water (principally that from sprinkling) would accumulate and rest in these receptacles, so well prepared to preserve it. Many small insects would fall into this water and be drowned. Last year, when the season was warm and when the windows of the house were often open, the number of insects was very considerable, and these, soaking in the water, gradually fell into decay, and it was remarkable that there was during this not the least sign of any putrescent odor. Those who believe in the theory of insect-eating plants may perhaps in this be led to find an argument favorable to such doctrines. They will add that the variety of colors so strikingly seen in these leaves constitutes the agent of attraction for the insects to come and be drowned. These reflections, each of a different sort, here present themselves: 1. Is it not remarkable that the exaggerated peltation of these leaves is in this case accompanied by an apparent insectivorism, and that the leaves of the plants known up to this time by botanists as carnivorous owe their sac-like, horn-like forms only to an excessive peltation of their limb, as we demonstrated in the evolution of the leaves of *Sarracenia* (*Comp. Rend.* lxxi. 630)? 2. How can it be considered as a proof of insectivorism, that plants such as the *Utricularia* grow better in a fluid containing albuminoid compounds, when other plants grow equally favorably in the same kind of fluid, and which latter are never for a moment thought of as carnivorous? 3. How do the chief priests of our science reconcile the two ideas, that the surface of the leaves of plants is unable to absorb pure water in contact with them, and that the same surface daily absorbs water charged with albuminoid substances and the like?

Albino Arethusa.—A white flowered variety of this rare and beautiful North American orchid has recently been discovered in Rhode Island by Professor W. W. Bailey. It has the yellow markings of the labellum, as in the ordinary red flowered form. In his "Wild Flowers of America," Professor Goodale states that the plant grows in bogs, with its corm embedded in peat moss, sometimes two or three inches below the surface.

CURIOUS FACTS ABOUT THE ALBATROSS.

The tracts of lower, nearly flat land of Marion Island, skirting the sea, and the lower hills and slopes along the shore, presented a curious spectacle, as viewed from the ship as it steamed in towards a likely-looking sheltered spot for landing. The whole place was everywhere dotted over with albatrosses, the large white albatross or goney (*D. exulans*). The birds were scattered irregularly all over the green in pairs, looking in the distance not unlike geese on a common.

The albatrosses were all around, raised from the ground. Their nests are in the style of those of the mollymanks, but much larger, a foot and a half at least in diameter at the top.

They are made up of tufts of grass and moss, with plenty of adhering earth beaten and packed together, and are not so straight in the sides as those of the mollymanks, but more conical, with broad bases. The female albatross is sprinkled with gray on the back, and is thus darker than the male, which is of a splendid snow white, with the least possible gray speckling, and which was now, of course, seen in his full glory and best breeding plumage; the tails and wings of both birds are of course dark.

The albatrosses one meets with at sea are most frequently birds in young plumage or bad condition, and have a rather dirty, draggled look. The brooding birds are very striking objects, sitting raised up on the nest, commonly with the male bird beside it. They sit fast on the nest when approached, but snap their bills savagely together, making thus a loudish noise. They will bite hold of a stick when it is pushed up against their bills. They need a good deal of bullying with the stick before they stand up in the nest and let one see whether they have got an egg there or no. Then the egg is seen to appear slowly out of the pouch in which it is held during incubation. It is nearly five inches long, or about as big as a swan's, and is white, with specks of red at the large end. Only one egg is laid. In most of the nests there were fresh eggs; in some, however, nearly full-grown young birds.

At Campbell Island, of the Campbell and Auckland group, the young of *Diomedea exulans* were found just breaking the shell in February, by an exploring party.*

Charles Goodridge, who was one of a sealing party on the Prince Edward Islands in 1820, and spent two years on the Croyets, says that the albatrosses there lay at about Christmas, and that the period of incubation is about three months (?). The young, he says, were wing-feathered, and good to eat about May, and did not fly off till December.†

The young albatrosses are dark-gray in plumage. They snap their bills, like the old ones, to try and frighten away enemies. The old birds never attempt to fly, though persistently ill-treated or driven heavily waddling over the ground.

Very many were killed by the sailors that their wing bones might be taken out for pipe stems, and their feet skinned to make tobacco pouches. The old males tried to run away when frightened, but never even raised their wings.

It is amusing to watch the process of courtship. The male, standing by the female on the nest, raises his wings, spreads his tail and elevates it, throws up his head with the bill in the air, or stretches it straight out forwards as far as he can, and then utters a curious cry, like the mollymanks, but in a much lower key, as would be expected from his larger larynx. While uttering the cry the bird sways his neck up and down. The female responds with a similar note, and they bring the tips of their bills lovingly together. This sort of thing goes on for half an hour or so at a time. No doubt the birds consider that they are singing. Occasionally an albatross flies round and alights upon the grass, but I saw none take wing.—*H. N. Moseley.*—*Challenger Notes.*

A WISCONSIN cow died not long ago, after a lingering illness, attended by a persistent cough. After her death a veterinary surgeon opened the windpipe to discover the cause of the irritation, and found in the upper part of the lung a live striped frog of ordinary size. The surrounding portion of the lung was much discolored.

* "Notes on the Geology of the Outlying Islands of New Zealand. Reported by Dr. Hector, F.R.S."—Trans. N. Zealand Inst., vol. xi., 1869. p. 75.

† "Narrative of a Voyage to the South Seas, and Eight Years' Residence in Van Diemen's Land," p. 36. By C. M. Goodridge. London: Hamilton & Adams. 1833.