

# Whales and Jack Rabbits

*Mammalogy*

Herewith are reported some of the outstanding papers read at the recent meeting of the American Society of Mammalogists at Washington.

Whaling did not go out with the clipper ships at the advent of steam and kerosene.

The modern whale brings in money comparable with the proceeds of the golden age of whaling when corset-makers paid \$5 a pound for whale-bone, it was revealed at the recent whale symposium at the U. S. National Museum in connection with the meeting of the American Society of Mammalogists.

At the South Shetland Islands, close to the Antarctic Circle, Dr. Waldo L. Schmitt of the National Museum told the assembled scientists, floating factories convert the big cetaceans brought in by the steam whalers into oil for the soap companies, bone charcoal for the sugar refining industry, and ground dried meat for chicken feed. Under this efficient management a single whale will bring as high as \$10,000, Dr. Schmitt declared. The harpooner, the man on whose skill in hurling barbed death at the huge sea mammals the success of the expedition depends, is the most highly paid member of this modern industry carried on in the shadow of the South Pole.

At Eureka, Calif., is a shore station, described by Dr. A. Brazier Howell, also of the National Museum staff, where a similar whale factory operates on land, turning the products of the humpbacked whales of the west coast into the same useful commodities as are shipped from the Antarctic. The highest value for a California whale, however, only reaches around \$2,500.

A whale louse, one third of an inch long, which is not really a louse at all but a member of the crab family that behaves like a cootie, is one of the pests that make life interesting for the great sea beasts, according to Dr. H. C. Raven of the American Museum of Natural History.

The white whales have formed the basis of an industry that has descended from father to son in the province of Quebec, Canada, since colonial times, Copley Amory told the biologists and naturalists. The hides of the big fellows are exported to Scotland where the canny Scots turn them all into shoestrings, and apparently make money at it.

Remington Kellogg, of the U. S. Biological Survey, issued a plea to members of the society to turn in information about any logs of old whal-

ing vessels that they might chance to run across. From such records as this, scientists are digging out valuable data about the migrations of whales. Sometimes, Mr. Kellogg pointed out, a parasite of known southern origin found on the body of a whale in northern waters will reveal useful information about the animal's wanderings.

The bottle-nosed porpoise fishery at Hatteras, N. C. was described by Howard I. Wordell. This porpoise is sought for the oil case in the top of its head that furnishes the most expensive oil known to commerce. It is highly prized by watchmakers because it is practically the only oil that does not dry out. About two quarts are obtained from each animal.

With whales being killed at the rate of 18,000 per year, some system of licensing through an international agreement should be established to prevent the great cetaceans from becoming extinct and to safeguard the future of the industry, said Lewis Radcliffe of the U. S. Bureau of Fisheries. Though the whaling industry today is largely in the hands of the Norwegians, an increasing flood of the articles made from whale oil, of which over 60,000,000 gallons were produced last year, is finding its way into the American markets, Mr. Radcliffe declared. Soap factories are the largest consumers of whale oil but glycerin derived from whale oil is used as the basis of many kinds of beauty creams, shaving soaps, tooth paste and other toilet preparations. In Europe some of the oil is made into lard substitutes and candles. Sperm oil is a valuable lubricant while spermaceti is used in cold cream. Whale meal, bone meal, blood meal, stearine and canned whale meat are other by-products of this old-new industry that have swelled its income to around \$30,000,000 annually.

Whaling ceased to be predominantly American, said Mr. Radcliffe, at the time of the Civil War when the New England whalers were burned, captured or turned into warships. The discovery of petroleum as an illuminating agent gave it another setback in this country. The invention of the harpoon gun in 1864, however, marked a new era in whaling. This and the use of steam whalers and motor launches that permit the towing of the captured animal ashore to stations where the carcass can be more completely utilized have

revolutionized the industry. An even more efficient phase was the development of the floating factory whereby the whole outfit of small whalers and manufacturing plant could transfer itself to new fields as fast as one was exhausted.

Since the beginning of the twentieth century whaling operations have been confined largely to the Antarctic where they still remain largely in the control of Norwegian companies.

Jack-rabbits may be dumb, but they know how to hide their young so well that very few are ever found by naturalists, Dr. Chas. T. Vorhies, of the University of Arizona, and Dr. Walter P. Taylor of the U. S. Biological Survey find.

The various jack-rabbits are range pests of outstanding destructiveness. In fenced plots on the open range near Tucson, Arizona, jack-rabbits and other rodents consumed 81 per cent of the range forage. One season 88 acres of cotton were destroyed in one locality, entailing a loss to the farmers of \$14,960. The breeding season of the jack-rabbits of the southwest embraces nine months of the year, January to September, although the number of young in each litter is small, usually only from 1 to 3, with a maximum of 5.

The food of the rabbits includes several species of important forage grasses, as well as the bark of mesquites, catclaws, and palo verdes. Rabbits drink water when available, but over most of the year they rely on cactus and buried tuberous roots for liquid refreshment. The life-history and experimental studies of these animals are to be continued with the object of obtaining a better understanding of the relations of rabbits to important forage plants on the grazing ranges and of possible means of increasing range productivity through their control.

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Filling a dirigible with helium gas costs more than a quarter of a million dollars.

The African Gold Coast has a population of over 2,000,000 natives and 2,000 non-natives.

The span of life of industrial workers is found to be eight years shorter than of non-industrial workers.