NATURAL RESOURCES

Waterbirds Dispossessed

Conservationists throughout the United States are faced with the problem of preserving our waterbirds which depend on marshes and other wetlands for their survival.

➤ MARSHES, swamps and wetlands throughout the United States are on their way out. Going with them are hundreds of our waterbirds.

Ducks, geese, herons, grebes, coots and many other birds that depend on wetlands for nesting, shelter and food are being dispossessed. As water and land are being taken over for farming, industrial development, or to give expanding cities room, whole populations of waterbirds are disappearing, many going north and south of the border.

Three scientists, studying a small marsh in Utah, have been able to measure the direct effects of lost wetlands on waterbird populations. Of 17 species found nesting or living in the marsh in 1950, six did not nest there at all in 1955; four species were still around but had two-thirds fewer nests, while nests of other species were also present in reduced numbers.

Altogether, the scientists report, there was a decline of one-third in the number of species and two-thirds in the number of birds nesting in the Knudson Marsh during a period of only five years. Deep-water species, especially, disappeared as did the wading birds except for the Great Blue Heron.

Although drought conditions helped reduce the water available to the marsh, the scientists point to intensive over-grazing by cattle and increasing demands for irrigation water as important factors in the birds' disappearance.

Wildlife conservationists warn that this is happening throughout the country. Since the 1940's some 1,000,000 acres of wetlands have been drained in the three states of North Dakota, South Dakota and Minnesota alone.

Nationwide losses in wetlands have been extensive. In 1934 we had 120,000,000 acres of wetlands; today there are only 30,000,000 acres.

Those in charge of maintaining public and private refuges for waterbirds are under pressure to permit development of the "unused" land. Along the Texas coast, the Mississippi River, in Florida, and along the Atlantic seaboard, industrial development and urban expansion are making it impossible for waterbirds to remain.

Conservationists hope that with recent passage of the Duck Stamp Act there will be some increases in the number of acres of wetlands. Most of the money gained by increasing the duck stamp fee to $3 will go to the purchase of leasing of wetlands for waterbird refuges.

Details of the Utah marsh study appear in *The Condor* (July-Aug.) published by the Cooper Ornithological Society. Milton W. Weller, Billy H. Wingfield and Jessop B. Low of Iowa State College and Utah State University made the study.

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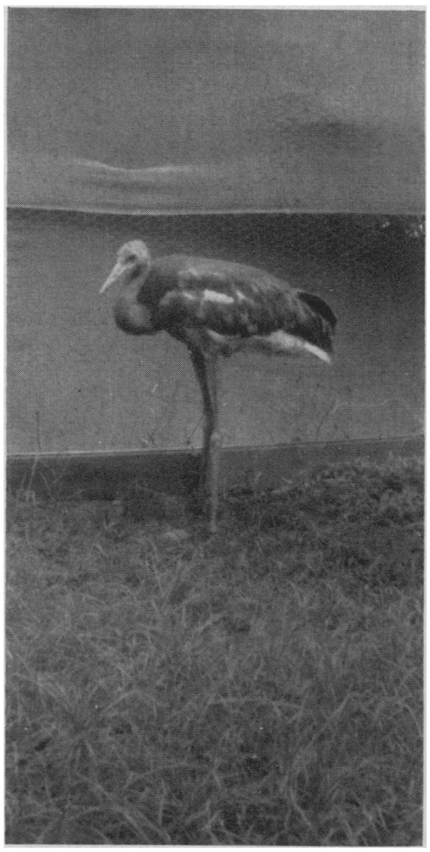

BABY WHOOPER — This long-legged bird is a young whooping crane, one of the birds hatched and raised in captivity at the Audubon Park Zoo, New Orleans, La. The egg was hatched on April 30; the chick was two and one-half months old when the photograph was taken in mid-July.

MEDICINE

Make Bee-Venom Extract

➤ A BEE-VENOM extract made from whole bees has been found to be a helpful desensitizing agent for people who experience severe reactions from bee stings.

The whole bee extract is made from hundreds of bees that are chloroformed in closed containers. The bodies are washed in a colander with cold water, spread to dry, and then ground into a thick paste. The paste is then squeezed through a fine double-muslin bag and filtered. The clean fluid that is recovered constitutes the "whole bee" extract, David Ordman of the South African Institute for Medical Research, Johannesburg, reports in the *British Medical Journal* (Aug. 9).

The whole bees were used instead of just the material from the sting apparatus because earlier investigations revealed that persons sensitive to bee stings reacted similarly to both the whole bee and stinger extracts. This indicated that there was a common antigen, or desensitizing agent, and since handling of the whole body was easier, use of the stinger alone was abandoned.

Desensitization is accomplished by injecting the bee-venom extract between the layers of skin.

Of 24 cases of desensitizing by this method, 19, when stung again, experienced no severe reactions.

One case was classified as slightly improved, while the remaining four reported no improvement. Twenty-three others were given the bee-venom extract, but since they have not been stung since the injections, no results can be reported, Mr. Ordman says.

Persons who experience severe reactions from stings usually display redness and swelling at the site of the sting, rash, puffy face, or shock with collapse or unconsciousness, or a combination of these reactions. Even death has been attributed to bee stings, Mr. Ordman points out, and in South Africa, one is occasionally reported.

As a result of the testing program of the bee-venom extract, treatment sets have been ordered by doctors and are issued in a series of different strengths.

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GEOPHYSICS

Prove Lightning Flashes Cause Radio "Whistlers"

➤ LIGHTNING flashes do produce "whistlers," radio waves of such low frequency they fall in the audible range.

However, most lightning strokes do not generate whistlers, which travel to great heights along the lines of the earth's magnetic field and down to ground again at the geomagnetically symmetrical place in the opposite hemisphere.

Prior to observations by Dr. M. G. Morgan of Dartmouth College, Hanover, N. H., virtually all atttempts to observe lightning visually and to hear a resulting whistler have been unsuccessful. Dr. Morgan, seeing a lightning storm approach Hanover, tuned in his whistler receiver.

At first there was no relation between the flashes and the whistlers he heard. However, as the storm advanced, every visible flash was producing a strong whistler. Dr. Morgan reports the first successful observations in *Nature* (Aug. 2).

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