

31 species and caught two kinds of vampire bats, a type that lives on blood alone.

Nets Catch Bats

Mr. Tyson set up fine black mesh nets—two at each of the houses in the afternoon. His team collected bats from sundown till 10 o'clock each night. They also set up nets in the streets and made collections from 24 village grass-grown lanes, as well as the forest and brush areas near the town.

Using gloved hands, the team caged the bats and took them to the laboratory, where blood samples were taken from some of them. Also being studied as possible carriers are fleas, ticks, mites and mosquitoes.

Hemorrhagic fever was first noticed in Bolivia in epidemic form in 1960 in the small settlement of Orabayaya in the northern section of the country. It was thought to be a form of typhus, carried by the louse, but when patients failed to respond to treatment the Bolivian Government sent out its call to the United States for aid.

Dr. Mackenzie was sent to Bolivia. Since Orabayaya had been abandoned, he spent his time at a temporary hospital in the nearby

town of Magdalena, which he said was infested by millions of bats.

Officials at the National Institute of Allergy and Infectious Diseases told SCIENCE SERVICE that the disease had died down considerably since elimination of rodents from San Joaquin and the abandonment of Orabayaya.

Dr. Merle Kuns, a virologist and ecologist with the National Institute of Allergy and Infectious Diseases, started the study to determine the role of bats in the epidemic. But he and Dr. Ned H. Wiebenga have also helped to isolate the virus in the "rouse," called scientifically *Calomys collosus*.

Assisting the studies of the Institute of Allergy and Infectious Diseases at the Middle American Research Unit are the Bolivian Ministry of Health, the Pan American Sanitary Bureau and the Caribbean Command of the U.S. Army, including Walter Reed Medical Center researchers.

Meanwhile, deaths from the disease, mostly among the very old and the very young continue. But new findings are raising hopes that soon a definite carrier and a life-preserving vaccine will be found.

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MEDICINE

Rabid Bats Increase

► A WARNING on the danger of an increase in rabid bats has been sounded following a medical study on the spread of the disease.

In the New England Journal of Medicine 272:75, 1965, four doctors stated that rabies-infected bats are now present in 44 states, including many areas heretofore free of the disease-ridden bats, and predicted that all 50 states would be infested eventually.

The researchers said further study is necessary to determine the extent to which bats infect other "rabies susceptible" animals. There is, however, no question of their ability to spread virus to comparatively distant geographic locations.

The study was concentrated in southern New England. The doctors further warned against handling bats and urged that all bat bites be reported to authorities. They emphasized that all bites should be considered rabid until proved otherwise, and the biting bat should be captured for testing if possible.

Since the presence or absence of the disease in bats can be the only basis for bat-rabies control, at least five states have conducted studies to find the extent of the disease. Control is by post-immunization after exposure in humans and immunization before exposure in pets.

Positive infection is often difficult to establish because it may occur infrequently at first. For example, scientists in Florida examined 3,984 bats and found eight infected bats.

Massachusetts was for many years free of rabies, with no cases of human infection since 1935. In 1958, a study of 218 bats in the Taunton-Middleboro section of southeastern Massachusetts showed no rabies.

Then in 1961, a woman in Harvard, Mass., was bitten by a rabies-infected bat.

Bats were collected for the Massachusetts study from July 1962 until December 1963. The rabies-fluorescent-antibody test on rats was most successfully used, although several other tests were tried and found to be less accurate.

In the rabies-fluorescent-antibody test, urine from the suspect bat is injected into a mouse brain. Upon autopsy, a search for antibodies is made in the mouse brain using fluorescent light through an ultraviolet filter.

The research was conducted by Drs. Kenneth F. Girard, Geoffrey Edsall and Robert A. MacCready, all of the Harvard School of Public Health, Boston, and Dr. Harold B. Hitchcock, Middlebury College, Vermont.

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MEDICINE

Alcoholics Respond To Make-Believe Pill

► ALCOHOLICS who are made to think they are being treated for the discomforts of withdrawal in many cases bear up as well as those who get drugs to ease them over the "cold turkey" anguish.

A study comparing the effects of two tranquilizers and a placebo, which has no medicinal ingredient, suggests that "the benefits produced by active drugs added only slightly to the major benefits produced by the therapeutic environment."

All the placebo patients were able to carry on through the three days of the study with no ill effects except for one case

of delirium tremens. The test group consisted of 58 men, from 28 to 59 years old, who had been drinking heavily from five days to several months before the tests began.

The study, which took place at the clinic of the Alcoholism and Drug Addiction Research Foundation in Toronto, was reported in the British Medical Journal, 1:92, 1965, by Dr. G. Sereny of the Foundation and Dr. H. Kalant, professor of pharmacology at the University of Toronto.

The researchers cautioned, in light of the effect of a placebo, that "it is all the more important to weigh carefully any additional benefit conferred by an active drug against the hazards which it may involve."

Librium, the most recent drug used for alcohol withdrawal symptoms, was compared with a typical phenothiazine tranquilizer, promazine, or Sparine.

Both drugs were more effective than the placebo in promoting sleep and diminishing sweat, but the men quickly developed tolerance to promazine so that it had no effect on them.

Although Librium appeared to be the better drug for treatment of these patients, the investigators say that it "constituted a relatively small addition to the placebo effect."

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Nature Note

Winter Wren

► THAT SMALL perky bird scurrying around in the underbrush like a mouse is a winter wren, one of the tiniest and toughest members of the beloved wren family.

With its short blunt tail held at an absurdly cocky angle over its back, this stocky dark brown bird about four inches long never seems to sit still.

In perpetual motion, this fascinating combination of timidity, curiosity and cockiness hops, creeps and climbs around thickets, vines, rocks and overturned tree roots searching for insects, grubs and insect eggs.

Its scientific name, *Troglodytes troglodytes*, meaning cave dweller, alludes to the affinity of the wren for creeping in and about dark recesses. Like a fluffy striped ping-pong ball, this bright-eyed bird pops into holes and crevices in a twinkling, only to reappear a few feet away.

Of the 63 species of wrens in the world, the winter wren is the only species found in Europe. Preferring the colder climate of the Northern Hemisphere, the winter wren is also found in Iceland, Asia, Japan and the Aleutian Islands, as well as in North America from Canada to the Gulf Coast. Other wrens prefer the warmer climates of the tropical Americas.

This busy bird carries on soft monologues of chirps, scoldings and chattering, although, like all wrens, it sings with a marvelously melodious bubbling song, best heard in the stillness of a cool forest.

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