

# Questions

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## HERPETOLOGY

### Reptile Is Sometimes a Victim of Misinformation

► ONE OF THE most feared reptiles in South Africa, the vivid blue-headed Agamid lizard, is actually harmless, Dr. Raymond B. Cowles, University of California at Los Angeles zoologist, has found.

In North Africa related forms of the Agamid lizard are hated by the Mohammedans. They give as their reason the animal's proneness to head-bobbing, which they believe is an intolerable mimicking of their bowing to Allah.

One of the more probable theories about the reason for this head-bobbing, according to Dr. Cowles, is that it may enhance depth perception. The lizard has monocular vision, that is, each eye is independent of the other. Better depth perception may result from compensating eye movements or movement of the image across the retina during bobbing.

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## Do You Know?

To get one ton of enriched, tailor-made iron ore pellets, three tons of *taconite* must be drilled, blasted, mined, transported, ground fine as flour, separated, rolled into balls and baked.

Quantity production of books in *Amharic*, the principal language of Ethiopia, has been made possible by the adaptation of the complicated Amharic script to mechanical typesetting.

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## METEOROLOGY

# NSF Supervision Urged

► THE NATIONAL Science Foundation should be charged with responsibility for all weather modification studies, the U. S. Weather Bureau's chief, Dr. F. W. Reichelderfer has urged.

He told a special Senate subcommittee considering legislation concerning rain making that extensive Weather Bureau studies showed this "new approach" was required to promote "progress on a sound basis."

The rain-making field, he charged, "has been plagued with too many amateurs and too few experts." Since recent studies have shown cloud seeding may decrease, rather than increase, rainfall, Dr. Reichelderfer called for an end to "hit-or-miss" rain making, and the start of a planned research program.

The fastest and least costly method would be to place responsibility for planning and coordination of such a program with one agency, preferably the National Science Foundation, he said.

Dr. Reichelderfer cited the recent statement by the council of the American Meteorological Society concerning weather modification to illustrate that results of rain-making experiments so far are "inconclusive." Implied in this statement, he said, were these three conclusions:

"1. Seeding of super-cooled clouds in winds blowing upslope over a mountain range may increase the snow storage for irrigation purposes. During cold weather, increase in snowfall by this means may be as high as 15% to 20%.

"2. In flat country, the effects, if any, of cloud seeding in terms of rain or snow to reach the ground are too small to be detected by evaluation methods so far developed. Evidence is conflicting. Sometimes seeding is followed by growth of the

## GENETICS

### Theory Proposed for Sickle Cell Occurrence

► AN ANSWER to the puzzling occurrence of sickle cell, causing a special kind of anemia, in Indonesia has been offered by a Dutch scientist.

The disease is usually found only in African Negroes and in people of southern Indian ancestry.

Dr. J. H. P. Jonxis, of the department of pediatrics at the State University, Groningen, believes a possible explanation for the occurrence of sickle cell in the area may be that during the period 1835 to about 1890 some 1,000 Negro soldiers were part of the Dutch Colonial Army in the former Dutch Indies. Also earlier Negro slaves were introduced into Indonesia.

Dr. Jonxis's report appears in *Nature* (April 27).

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cloud, at other times, by dissipation of the cloud. Present explanations are inadequate as to why increase may occur in some cases, decrease in others, and in still others no practical change beyond conversion of super-cooled cloud droplets into ice crystals, a change that is often an impressive spectacle in itself but may be without practical results in precipitation to reach the ground. Obviously, research is needed to diagnose the physical conditions of the individual cloud and determine factors that make seeding effective, also whether seeding will cause the cloud to grow in the given case, or to decrease in size and interfere with formation of showers.

"3. Cloud seeding is not a cure for general drought."

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## GEOPHYSICS

### Army Map Service Will Pinpoint Island Locations

► RADIO DATA received from the earth satellite will be used by scientists of the Army Map Service to pinpoint the location of certain Pacific islands on maps and navigation charts, heretofore in error as much as a mile.

Wake, Guam, Midway and American Samoa have been tentatively selected for the observations, which will establish accurate reference points in the Pacific Ocean for the first time, if successful. The Pacific is now the largest unsurveyed area on earth.

Using radio equipment that will track the satellite in its orbit, the scientists will be able to record on machines the precise instant the moonlet passes over a point on the earth's surface. The radio signals will indicate the satellite's exact longitude and latitude.

They are received on two sets of antennas, located 1,000 feet apart, the Mini-track system devised by the Naval Research Laboratory in Washington to keep track of the satellite. Radio sources, or "stars," in the sky will be used to calibrate the instruments, which are portable.

The Army Map Service hopes to recruit several teams, consisting of an astronomer, an electronic engineer, an electronic technician and a helper, to man each site. They will be in the Pacific Ocean area about one year of the 18-month International Geophysical Year, which starts July 1.

Teams in the field will not attempt to compute the island locations. They will transmit the data back to Army Map Service in Washington, D. C., where it will be mathematically computed to establish the precise location of the island measured.

Col. Julian D. Abell, U. S. Army, commands the Army Map Service, a unit of the Army Corps of Engineers.

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