

## SOUTHWEST REPTILE HUNT, THE LATEST IN SPORTS

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WHEN a chamber of commerce in Arizona advertises attractions of the state, one of the major claims of distinction is apt to be overlooked. This is the superb rattlesnake fauna—and the latest thing in sports, snake hunting! No other area of the earth boasts twelve different kinds of rattlesnakes, and the only areas that even compete are adjacent New Mexico, southern California, and northern Mexico.

During my recent sojourn of seven weeks in Arizona and New Mexico (*New Mexican*



*Zoological Field Trip, 1947*) each of the five rattlesnakes found and caught by members of my party represented a different species. First, we found an Arizona prairie rattler in a high, mesa-rimmed valley south of Springerville in eastern Arizona; second, a Pacific rattlesnake at an elevation of 8,100 feet in the moist evergreen forests of the Santa Catalina Mountains near Tucson; third, a Mohave rattler in the desert near that city; fourth, a black-tailed rattler in the much drier mountains near Reserve, western New Mexico; fifth, a western diamond-back resting in the shade beside a cattle tank near Columbus, southern New Mexico, at 4,050 feet.

The universal distribution and the abundance of species could scarcely be more fully confirmed. Those chamber of commerce boosters might truthfully advertise, for example, something of this sort: "Eleven times as many species of rattlesnakes found in the southeastern corner of Arizona as in the entire state of New Jersey." Perhaps this would help relieve over-crowded Tucson.

### You'll Probably See None

It does not follow that rattlers are frequently encountered by tourists in all parts of the Southwest because, throughout the more arid regions, snakes are seldom seen by any but the initiated. By "initiated" I mean those who have learned to hunt them at night. The explanation is not far to seek: the desert gets so warm during the day that not even a snake can stand contact with the hot soil, and therefore all of them seek either the shade of bushes or, more frequently, the cool depths of some rodent burrow. Needless to say, the rattler is anything but welcome in a burrow where it may kill two birds with one stone by securing a meal at the same time that it escapes the lethal heat. A rattler released on hot desert sands must find refuge in a few minutes or perish. The enormous rodent and rabbit population of

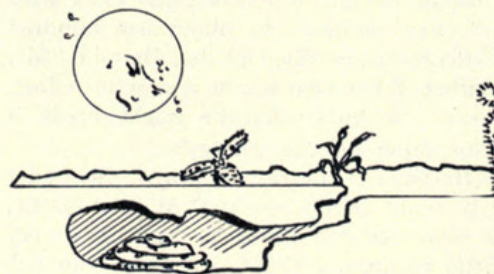
Arizona and New Mexico thus does the rattlers a double turn: it solves their housing problem and fills their bread basket.

In New Mexico alone there are more than a hundred different kinds of rodents and several species of rabbits. The adults of some are too large or formidable for the snakes to eat, but the young of nearly all make dainty reptilian snacks. The lack of trees often forces the small mammals to nest in places easily reached by the snakes. Inhospitable as the desert may appear to us, it is the home of a multitude of animals.

### A New Sport

Hunting snakes at night on the desert is a unique and fascinating sport developed in recent years by a few devotees. These addicts, however few in number, have worked so intensively that virtual "schools" have developed. The hunting is done in an automobile. Minor points, astonishing to the layman, are debated with great vigor. Just how fast should one drive? Should the hunter use only paved roads, and if he does should he keep his eyes fixed on the pavement or should he scrutinize the road's shoulders? At what temperature and wind velocity are most specimens to be found? The hazards of this sport are few if the worker confines his activities to the less-frequented roads where danger of collision from the rear is small: when the quarry is sighted, there is little time for a cry of "Tally-ho!" or even a proper signal to a car approaching from the rear.

We were introduced to this nocturnal sport by Mr. William H. Woodin, III, of Tucson, who has become an expert. Starting one night from the famous San Xavier Mission south of Tucson, we divided our collectors between two cars and headed northward. The lead car had gone but a short distance when its lights spotted the Mohave rattler already mentioned. The driver stopped with a jerk that threw everyone half off the seats. My chief collector had little difficulty picking the snake up



"behind the ears" after pinning it with a stick. This apt, if a little unscientific, indication of the point of seizure originated with the senior member of the party, our instructor's grandmother, whose presence proved that this type of collecting can be enjoyed even by grandparents with spunk. The remark is apt because it emphasizes the absolute necessity of grasping a rattler as close behind the head as possible; otherwise, it may turn and bite the restraining fingers.

Farther on, a long-nosed snake was found. This is a harmless and beautiful red and black desert snake. On a previous night we had seen tarantulas, horned toads, and a gecko. This last is a remarkably soft-skinned lizard that walks about with slow, deliberate movements like those of a prowling cat, and holds its body well off the ground. If anything looks out of place on a desert it is this gecko. It is never seen abroad during sunny hours because its delicate body could not endure the intense heat. We also found a leaf-nosed snake, one of the desert reptiles that was known to science from few specimens before night collecting proved it to be common. This, incidentally, is the fate of most animal rarities; sooner or later each one is proved to be anything but rare by the discovery of its true habitat or, in this case, behavior.

### Snakes That Aren't

I may have made this motorized night collecting sound very easy, but it is not. There are many pitfalls: simply sighting the animals is amazingly hard; then there is the difficulty of mistaking for prey every one of the great variety of objects lying on the road. Straws, sticks, stones, and domestic animal excreta all cause much wear and tear on the brake and throat linings of the novice. Especially exasperating are discarded fan-belts—they look like snakes even in daylight. Mr. Woodin says that his really nerve-shattering enemy is the hay truck on a windy night. When unfortunate enough to follow in the wake of such a truck without sighting it, he is tantalized by the straws that it occasionally sheds. These look like snakes but, dislodged by the gust of air from his car, often blow away ere he has stopped and backed to what surely is the proper point. A fruitless search, first on the road and then along it, leaves him doubtful of his sanity.

Our reconnaissance of reptile and amphibian habitats in New Mexico and Arizona took us to Oraibi in the heart of the great Hopi-Navajo Reservation of northeastern Arizona. This arid plateau holds special interest for herpetologists because it is in remote Hopiland that the annual snake dance, the Hopi prayer for rain, is held. In this elaborate ceremonial, wisely staged in late August when it is most likely to rain, large snakes, both harmless and venomous, are carried about with apparent recklessness in the mouths of the dancers. We arrived



too early in August for the dance, but one of the Hopis promised to put us on the mailing list for invitations in 1948. The current press reports that we missed a double show: the 1947 prayer for rain was answered by a cloudburst that stranded hundreds of tourists on the desert, the roads of Hopiland being entirely without "surface" and therefore impassable after a heavy downpour.

While walking about Oraibi, which incidentally is the oldest continuously inhabited site in the United States, we found a "horned toad" whose behavior would have been truly alarming had the reptile been a hundred times bigger. The little lizard (a reptile not even remotely related to the toads, which are true amphibians) measured only four inches from stem to stern, and, like "Mr. Five-by-Five," is almost as wide as long. Unlike that rotund human, the lizard is very flat and its skin, especially in the region of the head, is set with sharply pointed scales and spines.

### A Great Bluffer

The individual in question, as if conscious of its grotesque appearance, puffed itself up, stood high on its finger and toe tips, opened its mouth, and proceeded to rock back and forth in a manner that clearly meant, "Look out for me, I'm a tough guy!" The dark lining of the mouth, the wide gape from which issued sharp hisses, and the crown of spines combined to enhance the ludicrous effect of a sight that even Alice in Wonderland could not have dreamed. If we moved, it wheeled to face us and, once, even charged me. I was in hopes that it would squirt blood out of its eye as some kinds of horned toads do, but it would not put on this part of the show. When I picked it up and put a finger between its jaws they did not close; at heart it was about as dangerous as Tweedledum and Tweedledee together. Like most other reptiles, it was only a great bluffer. Actually, the most formidable



*Phrynosoma  
douglassii  
hernandesi*

thing about this little creature is its scientific name: *Phrynosoma douglassii hernandesi*.

Few of the thousands of tourists who zoom back and forth across our deserts think of these dry, treeless regions as anything but "god-forsaken." This may be a reasonable point of view from a car speeding at 75 miles an hour; the surrounding world of boundless interest is reserved for those who tarry long enough to enter it. With difficulty we

restricted our own interest to one tiny niche of this world and yet in two months we scarcely scratched the surface. The performance of the little horned toad is a sample of what one may see.

### Ghost-White and Elusive

It was not long before we were again thrilled by the reptile life of the desert. This was in the White Sands of the Tularosa Basin, a broad, flat valley of south central New Mexico. Here an ancient deposit of pure gypsum (plaster of Paris) constitutes the "white sands," which cover an area of about 350 square miles. These unique dunes are free of vegetation in places, sparsely grown with low desert plants in others. In these less barren stretches, lizards abound but, instead of having conspicuous colors like individuals of the same species in the surrounding parts of the Southwest, they are pale or almost white like the dazzling sands about them. This makes them extremely hard to find. Close examination showed that of three kinds seen in abundance one was so white that it could scarcely be detected when it lay motionless. In the other two, the usual pattern was evident but its colors showed little contrast.

### Selective Process

Presumably, over the thousands of years that the lizards have lived on the white surface, the darker individuals have been weeded out by predators so that only the lighter ones were left to reproduce. It is not the belief of zoologists that this weeding out process causes more pale lizards to be born; it only "selects" them among millions that hatch. The light specimens thus have an advantage and will in time predominate and the paleness even become fixed. Fortunately, these beautiful dunes, now part of the White Sands National Monument, are being preserved intact with their remarkable fauna and flora.

Upon leaving the dunes we had time to go only into the forested mountains to the east of the Tularosa Basin. There, in the different world of the moist evergreen forests on the slopes of Sierra Blanca, which rises to a height of 12,000 feet, we searched in vain for the rarer of the two salamanders known to occur in New Mexico and Arizona. This was the second defeat of the trip: a few weeks earlier in Mexico, Mr. Charles M. Bogert of the American Museum of Natural History, New York, and I had made a fruitless search of Chihuahuas sand dunes for a hypothetical fringed-footed sand lizard. But, as we sped eastward on our return journey, these defeats only beckoned us to return to the marvelous deserts and forests of our Southwest.

In Case 15, Hall 7 is the Southwest archaeologist's most important method of computing dates. The method is that of tree-ring dating.

## FIVE ADULT LECTURES IN NOVEMBER

Five more free illustrated lectures in the autumn course for adults remain to be given on Saturday afternoons at 2:30 during November in the James Simpson Theatre of the Museum. Of special interest is the November 8 lecture, "Archaeologists in Action," by Dr. Paul S. Martin, the Museum's own Chief Curator of Anthropology, in which he will tell of his latest finds during



### FILMING EXPEDITION FOR LECTURE

The Museum's cinematographer, Mr. John W. Moyer (left) on field assignment with Archaeological Expedition to the Southwest, making natural color films which will be shown with Dr. Paul S. Martin's lecture on Saturday, November 8. Dr. John Rinaldo of the expedition is seen at right. Note excavated human skull in foreground.

excavations of prehistoric sites in the Southwest, conducted last summer.

In addition to telling of his most recent work, Dr. Martin will review the discoveries made in his fourteen seasons of research in the same general area.

The dates, subjects and lecturers for November are as follows:

### November 1—ANTARCTIC ADVENTURE

Carl Eklund

### November 8—ARCHAEOLOGISTS IN ACTION

Dr. Paul S. Martin

### November 15—HUDSON BAY ADVENTURES

C. J. Albrecht

### November 22—THE NATURAL HISTORY OF MOSSES

Dr. William C. Steere

### November 29—RAMS OF THE RIMROCKS

Cleveland P. Grant

No tickets are necessary for admission to these lectures. A section of the Theatre is reserved for Members of the Museum, each of whom is entitled to two reserved seats. Requests for these seats should be made in advance by telephone (WABash 9410) or in writing, and seats will be held in the Member's name until 2:30 on the lecture day.





Pope, Clifford H. 1947. "Southwest Reptile Hunt, the Latest in Sports." *Bulletin* 18(11), 4-5.

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