spots and, consequently, they appear as prominent white scars from the air.

Some of the previously suggested modes of origin for these and other similar mounds are:

I. Human Origin—constructed by Indians for tepee sites.[1]

II. Erosional Origin—formed by the carving action of wind or water.[1]

III. Wind Depositional Origin—formed of wind-blown sand trapped by clumps of vegetation.[1]

IV. Artesian Spring Origin—deposited at the mouth of an artesian spring.[4]

V. Animal Origin—formed by burrowing animals,[2] such as gophers, prairie dogs or ground squirrels, or by insects such as hill-building ants.[1]

Of these suggested theories, the last one is probably the most generally accepted and, consequently, it is noteworthy that neither present-day nor fossil burrows were found by the writer and that ant hills were not frequently encountered. Moreover, one would expect the distribution of hillocks formed by animals to be independent of geological formations. The fact that they are definitely confined to areas of Quaternary brackish water sediments indicates that such deposits are directly associated with the origin of the mounds. Furthermore, although the writer has flown over and traveled over many parts of the Great Plain where one would expect mounds formed by burrowing animals to be best developed, he has not observed any mounds even remotely resembling those of the Gulf Coastal Plain.

It is the writer's belief that the mounds are water-deposited features originating as sandy islets along the margin of marsh-grass-lined lagoonal swamps. Aerial observations of many inaccessible areas, such as along the shore of Sabine Lake, Calcasieu Lake and on the landward side of the lagoon in the vicinity of Galveston, shows these islets along the shore in various stages of formation and grading into mounds preserved on land. During the process of filling-in of the lagoons by sedimentation the marsh grass of the shore line encroaches, not as an even stand of marsh grass, but rather by advancing into the lagoon in circular clumps as spots offshore become shallow enough to permit the grass to gain a foothold. After a few plants have gained such a foothold, they tend to trap sand and, in this manner, a submerged or slightly emerged islet surmounted by a thick clump of grass is constructed. When preserved by shoreline emergence, these small islets eventually form the small mounds that dot the coastal plain. In some areas islet-lined lagoons grade into level swamp land which farther inland becomes a so-called pimple prairie. In such cases, it is quite probable that the islets are preserved as sand lenses when the inter-mound areas become completely filled with silty clay. However, when the ground dries the mounds may again appear in relief as a result of the greater compaction of the clay between the mounds, compared to that of the sand composing them.

[4] T. L. Bailey, *Univ. of Texas Bull.*, No. 2333, 22–30, September 1, 1923.

ROBERT S. DIETZ

AN UNUSUAL ACTION OF AMPHETAMINE

WHILE screening compounds for amphetamine-like actions I observed the following interesting phenomenon: When fireflies were moistened on the abdomen with 0.5 per cent. to 2 per cent. amphetamine sulfate solution the normally intermittent glow became continuous for hours at a time. The more concentrated amphetamine solutions appeared to result in longer action.

Mr. G. R. Fessenden of this laboratory suggested the morning-glory beetle Metriona bicolor as a substitute for the firefly. This insect periodically assumes a gold color, which it loses when disturbed. Application of amphetamine solution to the beetles resulted in their developing a gold color which persisted for days and was not discharged by disturbing. We also applied amphetamine to ctenophor jelly-fish without effect on their luminescent behavior.

We are now attempting to ascertain whether this action is specific for amphetamine and whether it is on a luminescent enzyme system or on a muscular shutter system. The medico-legal uses of this test are also being explored.

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AN APPEAL FOR AID TO THE PHILIPPINE BUREAU OF FISHERIES

I HAVE been asked to aid in rebuilding the working library of the Philippine Bureau of Fisheries. The Japanese wantonly destroyed the great scientific library of the Bureau of Science and all scientific collections. In addition, the members of the staff of the Bureau of Fisheries lost all their possessions, including their professional libraries.

The resumption of work at the Bureau of Fisheries is under very great handicaps, not the least of which is the entire absence of all printed matter on fish and fisheries.

I therefore ask scientific men all over the country to contribute anything they can spare on fish, fisheries, fish culture and the like. Send material to me at the address given below. I shall undertake to see that it gets to the Bureau of Fisheries at Manila.

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