Compounds Capable of Plant Amylase Inhibition

It has been reported (*Science*, 1950, 111, 118) that 2,4-dichlorophenoxyacetic acid inhibits the alpha and beta amylase activity in the stems and leaves of the red kidney bean plant. In this connection it seems pertinent to call attention to our little-known report (Volker, J. F., and Murray, D. P. Salivary amylase inhibition. *Tufts Dental Outlook*, 1947, 21 [2], 3) in which we were able to demonstrate that indole nucleus containing plant hormones, including indole acetic acid, indole butyric acid, and indole propionic acid, were effective anti-amylases when added to refined starch in concentrations as low as 0.01%. Comparable anti-amylytic ability was also shown for similar concentrations of 2,4-dichlorophenoxyacetic acid, triiodobenzoic acid, naphthalene acetic acid, naphthoxyacetic acid, and nicotinic acid.

In view of these observations, it is suggested that in addition to 2,4-dichlorophenoxyacetic acid other of the above-mentioned compounds may be capable of plant amylase inhibition.

J. F. VOLKER

School of Dentistry
University of Alabama, Birmingham

Discovery of Early Cretaceous Mammals and Frogs in Texas

Following a suggestion by Glen L. Evans, of the Texas Memorial Museum, the Early Cretaceous Trinity Sands of Montague County, Texas, were briefly investigated for turtle remains early in November. While fragments of an interesting turtle were being collected, the most fortunate discovery of a lower jaw of a triconodont mammal was made. On a return visit, a few days later, a second and more complete jaw of the same form was secured. Mesozoic mammals are among the rarest and most interesting of vertebrate fossils. These triconodonts are the first mammals discovered in the Early Cretaceous of the New World. The only other known mammalian remains of this age are five isolated teeth from a locality in southern England. Until now, triconodonts were known only from the Jurassic and the latest Triassic.

The triconodonts are associated with fragmentary remains of land, fresh water, marine, and aerial forms. Crocodiles, dinosaurs (carnosaurs and ornithopods), pterosaurs, turtles, frogs, and fish are represented. The vertebrate fauna occurs here in marly sands that probably were deposited in the intertidal zone of a transgressing Early Cretaceous sea. The facies is in general similar to that of the mammal-bearing beds of the German Rhaetic and of the English Stonesfield Slate.

The discovery of frogs in these Trinity Sands may well prove to be of the utmost significance, since no members of this order have hitherto been reported from the Cretaceous period. In view of the fact that frog remains are known from Jurassic and even older deposits, the present finds may help to fill a conspicuous gap in our knowledge of the history of the order.

Since only a few days were spent in the region, there is every reason to hope that the new triconodont will become better known when intensive collecting is undertaken and that perhaps other mammals, more significant in the early history of the living orders, may be discovered. Work on a much more extensive scale is being planned by the Chicago Natural History Museum in northeastern Texas, in cooperation with E. H. Sellards, director, and Glen L. Evans, assistant director, of the Texas Memorial Museum.

RAINER ZANGERL and ROBERT H. DENISON
Chicago Natural History Museum

Arctic Ice Drift and the Humboldt Current

Exception must be taken to the article by Lalla R. Boone, "A Prediction Regarding the Humboldt Current" (*Science*, 1949, 110, 642), insofar as data collected by the International Ice Patrol are used by the author in attempting to show a relationship between "ice outbreaks in the Arctic" and abnormalities in the Humboldt Current three years later. The North Atlantic ice seasons of 1922 and 1938 are cited as having been unusually heavy and associated with the 1925 and 1941 failures of the Humboldt Current. The area kept under surveillance by the International Ice Patrol during the ice season is in the vicinity of the Grand Banks of Newfoundland and for purposes of comparing different years, the number of bergs reaching positions south of the 48th parallel has been estimated for each year. The berg counts for each year from and including 1900 are shown graphically in an article entitled "Arctic Ice and Its Drift Into the North Atlantic Ocean." The 9th edition of this article was published as a supplement to the May, 1949, *Pilot Chart of the North Atlantic* and the article is published as such a supplement each spring. The average for the 50-year period 1900–1949 is about 430 bergs per year. The numbers for the years 1922 and 1938 were 523 and 664 respectively and therefore greater than average. There seems no reason why these two years should be singled out when many other years also have had about the same or a larger number of bergs, as for instance the following:

Year	Berg Count	Year	Berg Count
1903	802	1929	1,351
1905	845	1932	514
1907	638	1934	560
1909	1,024	1935	875
1912	1,019	1939	850
1913	550	1943	840
1914	731	1944	700
1921	746	1945	1,083
1928	515	1948	523

The years 1922 and 1938 are described as being characterized by unusual outbreaks of arctic ice in the North Atlantic, presumably from reports of the International Ice Patrol on conditions in the region of the Grand Banks. This region is the terminus for the comparatively few