

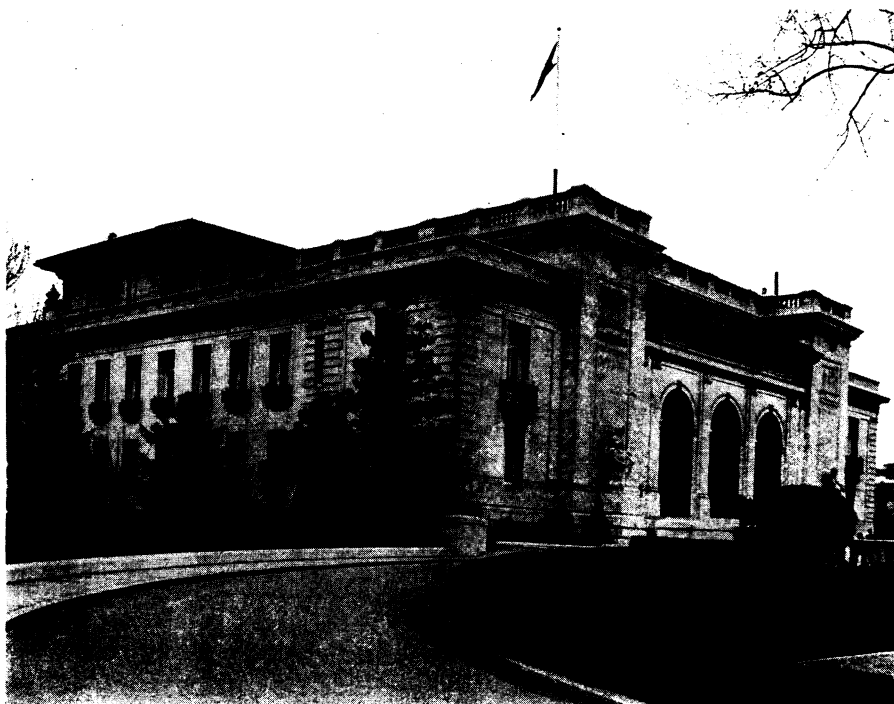


PREPARATION

Dr. Alexander Wetmore, assistant secretary of the Smithsonian Institution and secretary general of the Eighth American Scientific Congress discussing plans with Dr. Leo S. Rowe, director general of the Pan American Union. They stand in the lovely patio of the Pan American Union where are exhibits of flowers, foliage, and birds of the southern lands.

PAN AMERICAN UNION

Here will gather delegates from twenty-one American Republics to discuss scientific problems of mutual interest.



PHYSIOLOGY

Color-Change Chemistry Studied in Catfish

THE COMMON catfish can change its color like a chameleon, but much more slowly: it requires from one to two days to pass through its range from coal-black to pale greenish yellow. At the meeting of the American Philosophical Society, Prof. G. H. Parker of Harvard University discussed the physiological mechanism of these color changes.

It appears that they are all a matter of glandular reactions, stimulated by light reflected from the fish's background to its eyes or its skin. When light falls upon the skin, its effect is carried to the pituitary gland, which discharges a substance called intermedin. This is carried by the blood to the pigment-cells of the skin, which disperse their pigment and cause the fish to become dark.

When light from a dark surface enters the fish's eye, certain nerve fibers ending in the skin act more or less as glands, secreting a substance which also acts on the pigment-cells, causing darkening. Light reflected from a white surface has an opposite effect, producing a change toward lighter color.

In all, three secretions are involved in the color changes; intermedin, the darkening hormone (probably acetylcholine), and the lightening hormone (apparently adrenalin).

Fatty substances in the body may play an important role as storage reservoirs for some of the chemical compounds that control life processes, Prof. Parker suggested a few days later at the meeting of the National Academy of Sciences. His experiments have shown that when the nerves have been secreting acetylcholine for some time, it accumulates in fatty substances around the pigment cells, causing the darkening effect to persist. Prof. Parker considers it possible that other chemical control compounds are absorbed and stored by fatty substances in the same way.

Science News Letter, May 4, 1940

● RADIO ●

Dr. Alexander Wetmore, assistant secretary of the Smithsonian Institution, and secretary general of the Eighth American Scientific Congress will describe the Congress as guest scientist on "Adventures in Science" with Watson Davis, director of Science Service, over the coast to coast network of the Columbia Broadcasting System, Thursday, May 9, 4:00 p.m., EDST, 3:00 EST, 2:00 CST, 1:00 MST, 12:00 PST.

Listen in on your local station. Listen in each Thursday.