

eral physiological characteristics between the eyes of baby chicks and those of adult human beings.

It is concluded that ultraviolet radiations longer than 320 m μ encountered in nature are without deleterious effect on these two important functions of the normal eye.

References

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Maintenance of Respiratory Activity in Stored Peripheral Nerve

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Two-centimeter sections of the proximal portion of the sciatic nerve of the adult white rat were used in these experiments. Respiratory activity was measured in a Warburg-Barcroft apparatus, using a Krebs-Ringer suspension medium buffered at pH 3.38. In most experiments the suspension fluids contained 0.2 per cent glucose; in a few, 0.2 per cent sodium

MM³ O₂ UPTAKE PER HOUR PER MG OF TISSUE (WET WEIGHT)

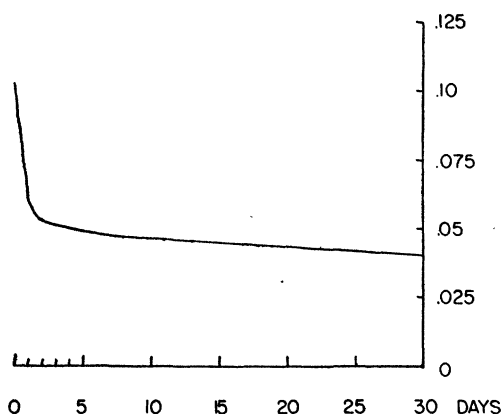


FIG. 1. Oxygen uptake of rat peripheral nerve preserved for various periods of time as described in text.

lactate was used; and in a few, plain solution was employed. Preserved specimens were kept aseptically in cotton-stoppered Erlenmeyer flasks in plain Krebs-Ringer solution at 5.5° C. Each experiment involved duplicate specimens run simultaneously; calculations were based on wet weight. In a series of preliminary runs simultaneous determinations of oxygen uptake of minced rat brain were used as checks in addition to

the three thermobarometers used as controls. Altogether, 44 determinations were made.

The results with the use of 0.2 per cent glucose medium are plotted in Fig. 1. All significant points on the curve represent an average of at least three experiments. Similar results were obtained in a lactate or plain medium, although these experiments were not continued beyond seven days. The oxygen uptake of fresh adult rat sciatic nerve in a glucose medium was 0.104 mm.³ O₂/hour/mg. of tissue, wet weight, or approximately one-tenth that of whole minced brain. After preservation for 2 days this value dropped to 0.055; after 30 days, to 0.044. The actual decline in oxidative activity is probably less than that indicated by the curve inasmuch as the wet weight of the nerve increases by at least 20 per cent after immersion in a protein-free solution of the Krebs-Ringer type (1). A correction for this factor still needs to be made and will demonstrate an even better preservation of oxidative activity than is indicated by the curve.

Reference

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A High Rate of Natural Plasmodium Infection in *Anopheles crucians*¹

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The principal vector of human malaria in eastern and southeastern United States is accepted to be the common and abundant *Anopheles quadrimaculatus* Say, and research and control programs for years have been based upon this hypothesis. For various reasons, such as differences in feeding habits or abundance, or failure to demonstrate infection in nature, the other species of *Anopheles* are not regarded as important factors in the transmission of Plasmodium.

During the summer of 1945, an extensive anopheline dissection program was carried out in an endemic malaria area along the Santee Swamp in coastal plain South Carolina. *A. quadrimaculatus* showed a gland infection rate of .175 per cent (33 infected mosquitoes in 18,826 dissected). By early November that species had disappeared from the usual resting places, although a number of *crucians* (= *crucians crucians*)

¹The work upon which this note is based is part of a comprehensive Field Research Study of Malaria being conducted jointly by the South Carolina State Board of Health and the U. S. Public Health Service, Office of Malaria Control in War Areas. Detailed papers on various phases of the program are in preparation.

were still present, up to 90 per natural resting place. Between 5 and 28 November 701 *crucians* were dissected, and 23, or 3.28 per cent, were found to have sporozoites in the salivary glands. During the immediately preceding months, when these infections originated, the monthly prevalence of human malaria in the same area, as determined by household thick film blood smear surveys in the first two weeks of each month, varied from 7 to 10 per cent (9.3 per cent in September, 7.4 per cent in October, 9.6 per cent in November).

The intensity of infection was higher in the infected *crucians* than in the *quadrifasciatus*. Under a scale of 1, 2, 3, and 4 plus used in malaria investigations of the National Institute of Health, 26.1 per cent of the *crucians* were heavily infected (3 and 4 plus) and 73.9 per cent lightly infected, whereas these proportions were, respectively, 18.2 and 81.8 per cent for *quadrifasciatus*. Those lightly infected averaged 15 sporozoites per mosquito for *crucians* and 3.2 for *quadrifasciatus*.

When captured, 60.3 per cent of the *crucians* were freshly engorged, and another 32.3 per cent contained blood only partly digested, indicating very recent meals and considerable activity throughout November.

The mean daily temperatures during the month ranged from 43° F. to 72° F., and the minimum temperatures from 24° F. to 62° F. Precipitin tests on 226 of the engorged adults, carried out at the Carter Memorial Laboratory, Savannah, Georgia, showed that 47.3 per cent had fed on equine blood, 23 per cent on bovine, 7.5 per cent on porcine, and 22.1 per cent on a blood source other than the above (no reaction) but that none had fed on human or avian blood.

In *A. crucians*, which is widespread in the southern states but abundant primarily on the coastal plain, only three naturally infected specimens appear to have been reported in the literature (1). For this reason, and because no epidemiological evidence to the contrary has been forthcoming, the species has been considered unimportant as a malaria vector. However, the present finding of a high infection rate in *crucians*, in addition to the fact that the species is more active and relatively more abundant earlier and later in the season than the principal vector in the United States, *quadrifasciatus*, indicates that the role of *crucians* in malaria transmission will bear further investigation.

Reference

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News and Notes

Special Announcement

All of the Washington offices of the AAAS were consolidated at the new Association building, 1515 Massachusetts Avenue, N.W., Washington 5, D. C., on 9 September 1946. The new building houses the offices of the administrative secretary, the editors and staffs of *Science* and the *Scientific Monthly*, the advertising department, and the membership and accounting departments. All communications relative to membership, publications, and advertising should now be sent to the new address.

About People

R. Hugh Wood, physician-in-chief at the Emory University Hospital, has been named dean of the Emory University School of Medicine. He succeeds Eugene A. Stead, Jr., who recently resigned to accept a position at Duke University.

Richard H. Young, Northwestern University, was appointed dean of the University of Utah Medical School at the August meeting of the Board of Regents.

Dr. Young, released from the Army in November 1945 as a lieutenant colonel after four years of service, was in charge of the Twelfth Hospital Unit, stationed for one year in Iran and almost two years in Italy. At present he is university physician, director of student health, and assistant professor of medicine at Northwestern University. Dr. Young succeeds H. L. Marshall, acting dean for the past 18 months, who will now devote full time to his duties as professor and head of the Department of Preventive Medicine and director of the Student Health Service.

Helmut Gordon, Department of Physiology, Medical School, Budapest, has joined the staff of the Laboratories of Bacteriology, University of Notre Dame, as pathologist.

William F. Allen, for 30 years head of the Department of Anatomy, University of Oregon Medical School, was recently made emeritus professor. He is succeeded by Olof Larsell.

Ward V. Evans, emeritus professor of chemistry, Northwestern University, will receive the 1946 Honor-