

*Anopheles* larvæ even at a density of 2.3 *Gambusia* per sq. mile, they found on the rice fields that the average extermination extended to 93.1 per cent. From their experiments and observations Sokolov and Chvaliova conclude that "*Gambusia* may be regarded as a sufficient agent of repression with the *Anopheles* larvæ, without applying any other methods."

The writer has for long been of the opinion that biological control of mosquito larvæ by the use of fish will prove very effective in India, but considerable work on proper lines remains to be done to determine the utility of the different species

under field conditions; and in this connection the methods adopted by Professors Sokolov and Chvaliova should prove very helpful.

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Sen, P., "On the Food Factors of the So-called Mosquito Destroying Fishes of Bengal—*Panchax panchax*, *Barbus stigma*, *Esomus danricus* and *Trichogaster asiaticus*," *Curr. Sci.*, 1937, 5, 357-361.

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## ASTRONOMICAL NOTES.

1. **Comets.**—The first Comet of the year was observed by Mr. Simizu in Japan. The object has been identified as Daniel's Comet 1909 IV which has not been seen since discovery in 1909. The computed period is about 6.8 years.

Comet 1937b was discovered on February 7, by Dr. Whipple of the Harvard Observatory. The estimated magnitude at the time was 12 and it had a short tail several minutes of arc in length. From the ephemeris based on the orbit calculated by Dr. Whipple, it is noted that the Comet will be in favourable position for observation during the next two months.

2. **Transit of Mercury.**—On May 11 the planet Mercury will be in inferior conjunction with the Sun and will partially transit over the Sun's disc. The phenomenon will be generally visible in Southern Asia and the central and southern parts of Africa. At Madras the ingress will occur at 2<sup>h</sup> 14<sup>m</sup> P.M. and egress at 2<sup>h</sup> 46<sup>m</sup> P.M. Indian Standard Time, and at Bombay the times are 2<sup>h</sup> 18<sup>m</sup> and 2<sup>h</sup> 42<sup>m</sup> P.M. respectively. The maximum ingress will be 7".3, the true diameter of the planet being 12".02.

3. **Planets in May 1937.**—The planet Venus will be a morning star throughout the month and will attain greatest brilliancy on May 24. Mars is a bright object rising in the early part of the night; it will be in opposition to the Sun on May 20 and will approach nearest the earth on May 28. The planet will be found a little to the west of the bright star Antares ( $\alpha$  Scorpii). The two objects, being nearly of the same colour,

present a noteworthy appearance in the evening sky. Jupiter rises about midnight and will be almost overhead early in the morning before sunrise. Saturn will also be a morning star, rising about two and a half hours after midnight in the middle of the month. The rings are gradually widening and can be seen with telescopes of moderate size.

4. **The System of Capella.**—The star  $\alpha$  Aurigæ (Capella) was found by Campbell to be a spectroscopic binary with a period of 104.022 days. Later measures at Mount Wilson with an interferometer have confirmed the period. The star has a faint companion (magnitude 10.6) about 12' distant, having the same proper motion. In *Astronomical Journal*, 1048, C. L. Stearus remarks that on photographs obtained by him, the image of this companion shows a distinct elongation and suspects, that it is also a double star. Kuiper, observing with the 40" Yerkes' refractor, has confirmed (*Ap. J.*, Oct. 1936) the star being a close double, so that Capella appears to be a quadruple system of the  $\epsilon$  Lyrae type.

5. **New Stars.**—The four Novæ which were observable about the end of 1936 are still fairly bright and can be seen even with small telescopes. Nova Herculis—the star that had its outburst in Dec. 1934—appears to be steady at the eighth magnitude with only some small fluctuations in brightness. The two Novæ in Aquilæ are slowly declining, the magnitudes of both on March 11 were estimated to be 9.7.