

## Correspondence

To the Editor

*Anopheles farauti* Laveran from the New Hebrides

MADAM—The taxon *Anopheles farauti* has been shown to consist of at least two species, provisionally designated *A. farauti* No. 1 and *A. farauti* No. 2 (Bryan, 1973). As Faureville, Efate Island, New Hebrides is the type locality of *A. farauti* Laveran, the relationship between mosquitoes from this area to *A. farauti* No. 1 and *A. farauti* No. 2 is relevant to the taxonomy of this group. The first published record of *A. farauti* No. 1 occurring in the New Hebrides was in 1977 (BRYAN, 1977). The reference in that paper to BRYAN (1973) was incorrect as no material from the New Hebrides had been studied before the 1973 paper went to press. However, since that time mosquitoes from near Vila, Efate Island have been crossed to both *A. farauti* No. 1 and *A. farauti* No. 2 using the induced mating technique (BAKER *et al.*, 1962). Both the hybrid males and females obtained by crossing with *A. farauti* No. 2 were sterile, showing that these two populations of mosquitoes belong to different species (MAYR, 1963). When crosses were made using *A. farauti* No. 1, the hybrid males and females were fertile suggesting that *A. farauti* No. 1 is conspecific with material from the type locality and that therefore *A. farauti* No. 1 is the type species and that *A. farauti* No. 2 is a new and as yet undescribed species.

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## References

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*Salmonella typhi* incidence compared to other *Salmonella* spp.

MADAM—In order to investigate the incidence of *Salmonella* in patients we examined 5,561 stool specimens and 27,729 blood cultures from people living in Madrid, from January 1978 to July 1980.

*Salmonella* was sought by inoculating the stools on McConkey Agar (Oxoid) and S. S. Agar (Oxoid) and in Selenite broth (Difco). 5 ml of blood were inoculated into two bottles of Brain Heart Infusion and Thioglycollate broth (Institut Pasteur and Pfizer) and smeared on Columbia Agar Base (Oxoid) supplemented with 5% horse blood. The inoculated plates were incubated at 37°C overnight.

Children (all less than 13 years old) and adults—all in- or out-patients at the Centro Ramón y Cajal—were investigated. *Salmonella* was cultured in 512 of 5,561 stool specimens (9.2%) corresponding to 326 patients. Of these, 203 were adults and 124 children. The positive cultures were identified as follows: *S. typhi* from 34 patients (10.42%); *S. typhimurium* from 119 (36.5%); *S. enteritidis* from 97 (29.75%); *S. agona* and *S. blockley* each from 8 (2.45%); *S. virchow* from 5 (1.53%); *S. heidelberg*, *S. orthmarchen* and *S. saint-Paul* each from 4 (1.22%); *S. duban*, *S. kapemba*, *S. infantis* and *S. ohio* each from 3 (0.92%); *S. derby* S. C.<sub>1</sub>, *S. paratyphi* B. S. Kalamu, *S. bredeney*, *S. kingston* S. B. (A, 5) and *S. panama* each from 2 (0.61%); *S. london* S. C.<sub>2</sub>, S. E.<sub>1</sub>, *S. kunduchi*, *S. gabon*, *S. tennessee*, *S. richmond*, *S. seftenberg*, *S. mendoza*, *S. lindrick*, *S. stormont*, *S. istanbul*, *S. anatum*, *S. muenchen* and *S. tananarive* each from one (0.30%).

We also cultured *Salmonella* from 168 of 27,729 blood cultures (0.61%) from 65 patients; of these, 53 were adults and 12 children. The positive cultures were identified as follows: *S. typhi* from 33 patients (50.76%); *S. enteritidis* from 13 (20.0%); *S. typhimurium* from 12 (18.46%); *S. paratyphi* B from 3 (4.61%); and *S. ohio*, *S. dublin*, *S. java* and *S. tsevie* each from one (1.53%).

Cases of human infection with *Salmonella* have been reported throughout the world (BARDIE *et al.*, 1975; CARBONELL *et al.*, 1972; CHERUBIN *et al.*, 1969; CORNIL *et al.*, 1963; FOX *et al.*, 1970; GOUT *et al.*, 1978; SCRAGG & APPELBAUM, 1979).

In our study, *S. typhi* was cultured in 33 of 65 patients with *Salmonella* detectable in blood culture; of these, 26 were adults and seven children. Although *S. typhi* was the most frequent isolation of *Salmonella* in blood culture (50.76%), *S. enteritidis* and *S. typhimurium* were obtained from 13 and 12 patients respectively.

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