BOOK REVIEW

Of Peaches and Maggots: The Story of Queensland Fruit Fly, by A.C. Courtice. Hillside Books, Marengo, NSW. 2006; 336 pp; softback. ISBN 0-9588239-0-1. Available from Hillside Books, 1187 Marengo Road, Marengo via Dorrigo, NSW 2453. Price A$34.50 (including postage).

This is an entertaining book, easy to read and well researched. Intended for non-professionals, it nevertheless has a much wider appeal. It entwines a history of fruit fly outbreaks in Australia and elsewhere, from the 1880s onwards (in particular the Toowoomba outbreak of 1885), with the author's own efforts to understand why they happened. It breathes life (in a romanticised way) into the minds and actions of many of the early entomologists involved with fruit fly research or control, including the familiar names of Henry Tryon, Walter Froggatt and Hubert Jarvis. Some are criticised and others praised, but the difficulties all these early workers faced are ably documented. Along the way some myths are debunked – for example, the history of the 1853 'Kiama' fly, long held to be one of the earliest records of Queensland fruit fly (*Bactrocera tryoni*) south of northern New South Wales but with no actual specimens in existence, has more than one intriguing twist. Some of the underlying causes attributed to many of the early outbreaks [and to some even earlier plant diseases, such as that resulting in the Irish 'potato famine'] are entirely unexpected.

I found particularly enjoyable, and enlightening, the tales of Dagobert Daldorf in India and Walter Froggatt in Australia – both of which help shed light on the vexed and enigmatic question [see below] of Mediterranean fruit fly, or Medfly (*Ceratitis capitata*) in India. Equally enjoyable are the discussions of Medfly's first detection in London in 1822 and the Queensland-New South Wales 'banana wars'. Noteworthy, too, is the well founded assertion that Medfly was present in Sydney several years before the 1898 date normally quoted and well before the arrival of Queensland fruit fly, which subsequently displaced it. In fact there is much of interest in this book, not just for those interested or involved in the study of fruit fly outbreaks, past or present.

There are some minor factual errors and some of a more serious and unnecessary nature, the latter possibly related to the author's apparent disdain for professional entomologists working in government departments. *Bactrocera tryoni* and *B. neohumeralis* are certainly not members of the *B. dorsalis* complex, which is represented in Australia by *B. cacuminata*, *B. opiliae* and *B. endiandrae*. Despite its primary use of cultivated fruits in southern Queensland and New South Wales, *B. tryoni* has a very large number of native hosts in northern Queensland. The geneticist referred to on page 153 was from Hawaii, not New Zealand and *B. occipitalis* is not the only pest member of the *B. dorsalis* complex in the Philippines – it occurs alongside the very similar, but distinct, *B. philippinensis*. The suggestion that the eradication of *B. papayae* from northern Queensland was 'staged for the benefit of trading partners ... but could not possibly have succeeded' is little more than a conspiracy theory which, like others of its ilk, does not withstand scientific scrutiny. *B. papayae* was eradicated due to the determined efforts, in exceptionally difficult circumstances, of those actively involved and the effectiveness of the attractant methyl eugenol. *B. papayae* has also invaded Papua New Guinea, where it remains well established. Cue-lure is less effective and this might in part explain why *B. tryoni* has not been eradicated successfully from Lord Howe Island. Another of these

seeming 'conspiracy theories' concerns the status of *B. aquilonis* in Darwin, implying ulterior motives which did not, and do not, exist. '*Ceratitis*' *dentipes* [now *Lenophila dentipes*] belongs in family Platystomatidae and does occur in New South Wales.

The question of Mediterranean fruit fly in India is problematical. It does not occur there now and almost certainly never did. The frequent assertion that the type specimen of *C. capitata* was collected by Daldorf personally 'along or off the coast of Bengal' is at odds with the specimen's label, which states 'in mari indico' [in Indian Ocean]. It is more likely that the specimen was presented to Daldorf by one of the Danish sea-captains plying the trade routes between Copenhagen [or East Africa] and Calcutta, many of whom, as a Royal representative, he would have known. However, the suggested collection date (between 1798 and 1802) is likely to be correct. Since then, the only specimens actually recorded from India are 4 females and a male from Pusa [an Agricultural Research Station in Bihar] dated 20.viii.[19]07 and 23.ix.[19]08 but with no indication of who collected them (Munro 1938). However, there are no reports of a Medfly outbreak in India in 1907-08 [or at any other time] and the 'Pusa' record is more likely to be of mislabelled reference specimens obtained from overseas. [This does happen: specimens of Medfly in the Suriname Department of Agriculture labelled 'Paramaribo' actually came from California (DLH, pers. obs. 1989)]. Bezzi (1913) noted that the only material in the Calcutta Museum at that time were 2 specimens from Australia presented by W.W. Froggatt [presumably in 1908, when he visited both Pusa and Calcutta]. This congruence of dates is telling and there can be little doubt that the 'Pusa' specimens were also gifts from Froggatt. No one took any notice of them until Munro received them from New Delhi. Bezzi (1909) did not refer to them, merely stating that *C. capitata* was 'recorded from India [based on the type], where apparently comparatively rare'. Neither Froggatt himself (1909) nor Senior-White (1924) made any mention of them and both doubted the occurrence of Medfly in the Oriental Region. The 3 females recorded by Munro (1938) as 'bred from peach' in August 1907 were most likely bred by Froggatt in Sydney where, at that time, Medfly was abundant.

Despite the above comments and criticisms, the overall conclusions reached regarding the history and causes of past fruit fly outbreaks and the species actually involved are both persuasive and plausible. Whether they withstand the test of time or not remains to be determined, but the journey there is nonetheless a fascinating read.

References

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