

DISCUSSION

In the five years that have passed since the previous review on the larger grain borer (Hodges, 1986), both research and control efforts have advanced considerably. For instance, binary insecticides have passed from preliminary testing to become the basis of large-scale control campaigns. Classical biological control has developed from a promising possibility to field testing in Africa. Ecological studies have clearly demonstrated that the initial conception of *P. truncatus* as a typical pest of farm-stored maize was altogether too narrow. The large number of new citations added to the previous bibliography of Wright (1986) also attests to the volume of work currently being undertaken by research groups around the world.

It is perhaps inevitable at this stage that each new study seems to raise as many questions as it answers. Although pheromone traps have revealed the presence of substantial numbers of *P. truncatus* far from maize production and storage sites, both in Africa and Mexico, the implications for stored products protection are far from obvious. It is not clear whether all or most of the insects found dispersing within maize production areas originated from maize and constitute a threat of renewed infestation. How important are these insects to the dynamics of pests in store? In Africa, the pheromone traps have documented the continued extensive spread of the insect but in some cases, for instance in Burundi, damaging pest outbreaks have not subsequently been recorded. As Hodges (1986) points out, there are many possible explanations for apparent differences in the pest incidence of larger grain borer in Africa, Mexico and Central America: different harvesting and storage practices, the maize varieties used and the activity of natural enemies are but a few of the possibilities. Individual studies have provided insights into particular details of the system. For instance, the activity of the predator *T. nigrescens* has been investigated in considerable detail. However, there is, as yet, no unifying conceptual framework into which to fit the disparate observations and within which to quantify their individual effects and interactions.

There is at least an awareness of the need to better coordinate international work on *P. truncatus*, divided as it is between at least three continents and four major languages. Meetings convened in Britain (Anonymous, 1984d), Togo (Anonymous, 1985a & d), Tanzania (Anonymous, 1988b), Benin (Markham & Herren, 1990) and again in Togo in 1990, reflect this awareness. The present bibliography is intended also to contribute to the necessary exchange of relevant information. Conceptually, there is also an