



Diagnostic Protocol Notification Period : 01 July – 15 August 2018 Formal Objections

Formal objection submitted by: China

Date: 14 August 2018

Draft DP: *Bactrocera dorsalis* complex (2006-026)

To the Secretariat of the International Plant Protection Convention:

China formally submits an objection on < Draft annex to ISPM 27: *Bactrocera dorsalis* complex (2006-006)>. China believes that the draft is unable to guarantee the effective diagnosis of *Bactrocera dorsalis* complex. The reasons are as follows:

1. The debate for the taxonomy revision of *Bactrocera dorsalis* complex has been lasted in recent years. The synonymous status of *B. dorsalis* *s.l.* is still argued by different experts (Schutze et al. 2017, Drew and Roming 2016, Schutze et al. 2015). The taxonomy status for the described 6 species in this draft is also uncertainty, for example, the hybridization between *B. dorsalis* with *B. carambolae*, *B. kandiensis* with *B. dorsalis* are known (Doorenweerd et al. 2018).

2. The draft standard is few practicable.

There are more than 80 species within *B. dorsalis* complex. The adult morphology characters and key in the protocol are just provided for diagnosis the 6 economic significant species which the category of severity is quite different (Vargas et al., 2015). The diagnosis key can not be used to distinguish the other species of the complex which is also considered as the target regulated pest in international commodity quarantine. The content of this draft is not consist with the topic.

3. The draft need more revision in the further development.

Many logistic problems had been found in the draft. For example, (1) Figure 2(a), 2(b) were found at para.107 and Figure 1 was first listed as referenced at para. 122. (2) The diagnostic morphological characters of adult in Table 3 had not been described by head, thorax, abdomen as the other taxonomic publications. Therefore the logistic confusion had found from Figure 3 to Figure 18 in the protocol. (3) The origin of specimen of complex, identification expert in Figure 3, the relevant information of *B. dorsalis* *s.l.* specimen used in this protocol had not provided.

According to the great concerns and the new technology (e.g. second sequence technology) for the research of *B. dorsalis* complex by international experts, the taxonomy debates will be clarified by more new publications. It is suggested that this draft should be pended, revised and adopted when new scientific evidences are provided.

References

Doorenweerd C., Leblanc L., Norrbom AL., Jose MS., Rubinoff D. 2018. A globe checklist of the 932 fruit fly species in the tribe Dacini (Diptera:Tephritidae). Zookeys 730:19-56. [HTTP://doi.org/10.3897/zookeys.730.21786](http://doi.org/10.3897/zookeys.730.21786)

Vargas R. I., Pinero J. C., Leblanc L. 2015. An overview of pest species of Bactorcera fruit flies (Diptera:Tephritidae) and the integration of biopesticides with other biological approaches for their management with a focus on the pacific region. Insects, 6, 297-318; [dio:10.3390/insects6020297](http://doi.org/10.3390/insects6020297)