



## First records of the mealybug *Rastrococcus invadens* Williams (Hemiptera: Pseudococcidae) in French Guiana and the Americas

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At the end of August 2014, a visitor to the French National Plant Protection service (NPPO) in Cayenne (French Guiana) brought in mango twigs covered with a significant amount of sooty mould. From these branches, the NPPO officers took large numbers of mealybugs from the underside of the leaves (Fig. 1). The sample was sent to the Plant Health Laboratory (LSV) in Montpellier where it was identified as *Rastrococcus invadens* Williams. This is the first record of this species in French Guiana and in the Americas.

The species was originally described based on material from Karachi, Pakistan (Williams, 1986) on *Mangifera indica*. The mealybugs are found mainly on the underside of leaves. The live adult females are 3.5–4.0 mm long and 2.0–2.5 mm wide, and are pale greenish white under their white wax cover, except for a bare stripe on the midline (Fig. 2). The marginal wax filaments are conspicuous and fairly long: anterior filaments are 3.5–6.0 mm, posterior ones are 5–8 mm long and lateral ones are 1.5–2.5 mm long. Fairly long wax filaments are one of the characteristics of the genus *Rastrococcus* (Fig. 2) (Williams, 1986). For further details, see the original description by Williams (1986) and identification keys in Williams (1989, 2004).

In the Oriental region, its area of origin, *R. invadens* is recorded from Pakistan, India, Bangladesh, Sri Lanka, Thailand, Hong Kong, Singapore, Malaysia, Indonesia, Philippines and Vietnam (Williams, 1986, 1989). During the 1980s, *R. invadens* was introduced to Togo and Ghana, from where it spread very rapidly throughout West Africa, becoming harmful to several crops (Lohr, 1984; Williams, 1986). To date it has been recorded in Benin, Congo, Ghana, Senegal, Togo (Ben-Dov *et al.*, 2014), Democratic Republic of Congo (Neuenschwander, 1989), Ivory Coast (N'Guetta, 1995), and Nigeria (Ivbijaro *et al.*, 1992).

Since its first identification from the city of Cayenne in French Guiana, *R. invadens* has been observed several times in the downtown and surrounding areas, and also in the nearby towns of Matoury and Remire. Surveys are continuing to determine the precise distribution of the pest. The discovery of multiple sites of infestation suggest that the introduction of *R. invadens* to French Guiana was earlier than its first identification there.

Although this species does not appear to be an important pest in its native region, it has become a pest of prime importance in Africa on mango with important yield losses, and sometimes is a pest on citrus and on many ornamental crop and shade trees (Agoukè *et al.*, 1988). Ben-Dov *et al.* (2014) lists 28 botanical families on which *R. invadens* has been recorded. Main host plants are *Atrocarpus altilis* (breadfruit), *Ficus* (Moraceae), *Citrus* (Rutaceae), *Mangifera indica* (mango) (Anacardiaceae), *Musa* (banana) (Musaceae), and *Plumeria* (frangipani) (Apocynaceae).

Additional hosts have been identified in French Guiana: *Melicoccus bijugatus* (Sapindaceae), *Morinda citrifolia* (Rubiaceae) (Fig. 1), *Adenium obesum* (Apocynaceae), *Spondias mombin* (Anacardiaceae), and *Mammea Americana* (Clusiaceae). Examined material: Cayenne, French Guiana, 25.VIII.2014, *Mangifera indica*, D. Laplace rec., identification Germain, J.-F. (10 females, slides label code 1401268, Anses collection); Matoury, French Guiana, 27.VIII.2014, *Citrus maxima*, id. GJF (4 females, slide label 1401313, Anses collection); Matoury, 28.VIII.2014, *A. obesum*, id. GJF (6 females, slides label 1401314, Anses collection); Matoury, 02.IX.2014, *Nerium oleander* (Apocynaceae), id. GJF (8 females, slides label 1401315, Anses collection).

This newly arrived species in the Americas could spread, as was the case in Africa, causing major damage. It is listed as a quarantine pest for Brazil (list A) and East Africa (list A1) (EPPO, 2014). Establishment of this pest in a new



**FIGURE 2.** Adult females and nymphal instars (DAAF-SALIM973 A. Devarieux, D. Laplace 04/09/2014)

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