

Spartocera batatas (Fabricius) (Hemiptera: Coreidae),
newly established in Florida

Susan E. Halbert and Julieta Brambila
Florida State Collection of Arthropods
Florida Department of Agriculture and Consumer Services
P.O. Box 147100
Gainesville, FL 32614-7100
halbers@doacs.state.fl.us

Abstract. *Spartocera batatas* (Fabricius) was found for the first time in the USA in Homestead, Florida, in 1995. Records from Brazil, British Guiana, Colombia, Dominica, Dominican Republic, Ecuador, Grenada, Jamaica, Martinique, Panama, Peru, Puerto Rico, Saba, and Venezuela also are reported. The bug can be a pest of sweet potato, *Ipomoea batatas*.

Introduction

Spartocera batatas (Fabricius 1758) (Fig. 1) was found in Homestead, Florida, in late June 1995 by Florida Department of Agriculture and Consumer Services, Division of Plant Industry (DPI) inspector Lynn D. Howerton. A large colony of the insects was found on an Asian cultivar of sweet potatoes (*Ipomoea batatas* (L.) Lam.) in a residential area. The plants were badly damaged by the bugs. *Spartocera batatas* has not been reported before in the USA except in a DPI circular (Halbert 1996). Other than a single collection of nymphs in Broward County, Florida, *S. batatas* has been found only in Miami-Dade County.

The Florida records are as follows: FSCA# E1995-2701, Homestead, 20 VI 1995, Lynn D. Howerton, on *I. batatas* (first USA record); FSCA# E1995-4344, Miami, 2 X 1995, Ramos A. Dones, no host listed; FSCA# E1996-3660, Coconut Grove, 10 IX 1996, Julieta Brambila, on a path in a hardwood hammock; FSCA# E1996-3661, Coconut Grove, 13 IX 1996, Julieta Brambila, found dead in a hardwood hammock; FSCA# E1996, Coconut Grove, 24 IX 1996, Julieta Brambila, on *Ipomoea batatas*; FSCA# E1997-1919, Homestead, 9 IV 1997, Julieta Brambila, on *I. batatas*; FSCA# E1997-1920, Homestead, 19 IV 1997, Julieta Brambila, on *I. batatas*; FSCA# E1997-4501, Key Biscayne, XI 1997, Roger Hammer, on *Ipomoea alba* L.; FSCA# E1999-1928, Homestead, 12 VII 1999, Edward T. Putland, on *Ipomoea microdactyla* Griseb.; FSCA# E1999-2010, Homestead, 22 VII 1999, Edward T. Putland, on *I. microdactyla*; FSCA# E1999-2314, Homestead, 9 VIII 1999, Julieta Brambila and Edward T. Putland, on *Ipomoea microdactyla*; FSCA# E2001-4558, Miami, 5 IV 2001, Paul Pratt, resting on

Melaleuca quinquenervia (Cav.) S.T. Blake; FSCA# E2002-3743, Miami, 7 VIII 2002, resting on lawn, patio walls, lawn furniture and various plants. There is a single Broward County record (nymphs only): FSCA# E2003-2939, SW Ranches, 27 VI 2003, Maria S. Quintanilla, on *Bischofia javanica*. This latter record is the northernmost recorded occurrence of *S. batatas*.

Spartocera batatas was described from Surinam under the name *Lygaeus batatas*. It is found in Puerto Rico, where it is considered a pest of sweet potato (Jones 1915, Martorell 1976, Wolcott 1923). Records from Cuba may indicate a range expansion, and thus a fairly recent colonization of that island (Grillo 1988).

In addition to the reports from Puerto Rico and Cuba, we have seen specimens from the following countries: BRAZIL: 1 male, S. Cath., Corupa (Hansa Humbolt), XI-1944, A. Maller (AMNH); 1 female, Para: Jacareacanga, I-1969, F. R. Barbosa (AMNH); 1 male Amazonas, Uypiranga, Rio Negro, 14 km from Manaus, 81 m [elev.], X-1941, August Rabaut (AMNH). BRITISH GUIANA: 1 female Rio Essequibo (Source), J. Oglivia (AMNH). COLOMBIA: 1 male Felipe Ovalle (AMNH). DOMINICA: 1 male Salibia, 28-30-I-1968, Borys Malkin (AMNH). DOMINICAN REPUBLIC: 1 female Pr. La Vega, La Cienaga de Manabao, Park. Headq., 3-5-VII-99, 3000 ft. Elev., R. E. Woodruff. ECUADOR: 1 female Pastaza: Ashuara Village on rio Macuma, 10 km. from Rio Morona, 300m, 5-16-VII-1971, B. Malkin (AMNH); 1 male 1 female same except 11-16-VII-1971, (AMNH); 1 female Pastaza: Cuisimi, on Rio Cuisimi, 150km SE Puyo, 350m. 15-31-V-1971, B. Malkin (AMNH). GRENADA: 8 male, 11 female St Andrews Parish, Cottage, 24-III-1990, J. Telesford, on sweet potato. JAMAICA: 1 male Port Antonio,



Figure 1. *Spartocera batatas* (Fabricius)

17-II-1955, B. Heineman (AMNH). MARTINIQUE: 1 male 5 km SE MorneRouge, 15-V-1983, Forest Rd. C.W. & L.B. O'Brien (O'Brien). PANAMA: 1 male 1 female Chiriqui Pr., 1 km S. Los Planes, 900 m., 8-IX-1998, Gillogly & Stockwell. PERU: 2 male, Upper Rio Tapiche, F-6040, H. Bassler (AMNH); 1 male, Rio Santiago, 11-VII-1930, F-6139, H. Bassler (AMNH); 1 male Achinamiza, 16-IX-1927, F-6001, H. Bassler (AMNH); 1 male 1 female Achinamiza, 19-IX-1927, H. Bassler (AMNH); 1 male Achinamiza, 20-IX-1927, H. Bassler (AMNH); 1 female, 2 nymphs Loreto: Headwater Rio Loreto-Yacu, Yagua Indian Vill., 21-IV-1-V-1970, B. Malkin (AMNH). PUERTO RICO: 1 female, Cabo Rojo, 22-VIII-1981, Stgo. Matos (FSCA); 1 male 1 female 1 nymph Rio Piedras, Sabana Llana, batata follaje [sweet potato leaves] 23-XI-1983, Luis Lago. SABA: 3 male 1 female Windward side, 11-15-I-1968, Boris Malkin (AMNH); 1 male Mt. Scenery, 19-VII-91, H.V. & R.M. Baranowski. VENEZUELA: 1 male Caripito, 29-VI-1942 (AMNH).

There are specimens in the United States National Museum (USNM), verified by Dr. T.J. Henry from the following additional countries: ST. LU-

CIA: 1 female Sta 200, 21-IV-1936, Chapin & Blackwelder. ST VINCENT: 1 female Sta/73 13-II-1936, Chapin & Blackwelder; 1 female Sta/178, 18-II-1936, Chapin & Blackwelder; 1 female Imp. Dept. Agric. West Indies, No. 295, Bot. Garden, 6-XII-1903, H.A.B.

Spartocera batatas will key to genus (under the old name, *Corecoris*) in Baranowski and Slater (1986). A revised key to Florida *Spartocera* follows (key taken from Halbert 1996):

- 1a. Antennae short, segments II and III subequal, IV 1/3 shorter, antennal segment I scarcely longer than the head; rare *diffusa* (Say)
- 1b. Antennae longer, segments II-IV subequal, antennal segment I distinctly longer than the head 2
- 2(1)a. Bright orange or yellow insect; pronotum with a pair of black longitudinal lines; on *Solanum americanum* *fusca* (Thunberg)
- 2b. Uniformly dark brown insect; pronotum without markings; on *Ipomoea* and possibly a few other plants *batatas* (Fabricius)

The most important host of *S. batatas* appears to be sweet potato, but it has been reported on a few other plants, including tomato (*Lycopersicon esculentum* Mill., Solanaceae), eggplant (*Solanum melongena* L., Solanaceae), potato (*Solanum tuberosum* L., Solanaceae), black nightshade (*Solanum nigrum* L., Solanaceae), avocado (*Persea americana* Mill., Lauraceae), and *Citrus* spp. (Rutaceae) (Grillo 1988, Martorell 1976, Alayo 1967, Barber 1939, Wolcott 1923). Our observations in Florida indicate that *S. batatas* adults sometimes disperse in high numbers and can be found on a wide variety of plants. Many of the above host records may not represent breeding populations. In Florida, breeding records have been obtained from *Ipomoea alba* L. (moonvine) (FSCA# E1997-4501) and *Ipomoea microdactyla* Griseb. (a morning glory) (FSCA# E1999-2314) in Miami-Dade County.

So far in Florida, in our experience, *S. batatas* has not become a pest of commercial sweet potatoes. Primarily, it is a nuisance in urban settings when large numbers develop on sweet potato plants or moonvine in home gardens, or in one case, a student science project.

Acknowledgments

We thank Alberto Pantoja, University of Puerto Rico, Mayagüez, for confirming our identifica-

tion of *S. batatas*, Rosa Franqui, University of Puerto Rico, Rio Piedras, R.T. Schuh, American Museum of Natural History, New York, and C.W. and L.B. O'Brien for loaning specimens, T.J. Henry for checking specimens at the USNM, and R.M. Baranowski and T.J. Henry for reviewing the manuscript.

References cited

- Alayo, Pastor D.** 1967. Los hemipteros cubanos de la familia Coreidae. Catalogo de la Fauna de Cuba XXV. Los Hemipteros de Cuba VIII. Trabajos de Divulgacion No. 56 Museo "Felipe Poey" de la Academia de Ciencias de Cuba. 41pp.
- Barber, H.G.** 1939. Scientific survey of Porto Rico and the Virgin Islands. Volume 14, Part 3. Hemiptera-Heteroptera (excepting the Miridae and Corixidae). New York Academy of Sciences, New York, NY. 441pp.
- Baranowski, R.M. and J.A. Slater.** 1986. Coreidae of Florida (Hemiptera: Heteroptera). Arthropods of Florida and Neighboring Land Areas. Florida Department of Agriculture and Consumer Services, Gainesville, FL. Volume 122. 82pp.
- Fabricius, J.C.** 1798. Supplementum entomologiae systematicae. Hafniae: Proft et Storch pp. 511-524.
- Grillo, R., H.** 1988. *Spartocera batatas* (Fabricius) (Heteroptera: Coreidae) en Cuba. Centro Agrícola 15: 87-88.
- Halbert, S.E.** 1996. *Spartocera batatas* (Fabricius) (Hemiptera: Coreidae), a new pest of sweet potatoes and several other plants. Florida Department of Agriculture and Consumer Services, Division of Plant Industry Entomology Circular No. 379. 2pp.
- Jones, T.H.** 1915. Insects affecting vegetable crops in Porto Rico. Bulletin of the US Department of Agriculture No. 192. 11 pp. + 4 plates.
- Martorell, L.F.** 1976. Annotated food plant catalog of the insects of Puerto Rico. University of Puerto Rico, Department of Entomology, Agricultural Experiment station. 276 pp.
- Wolcott, G.N.** 1923. "Insectae Portoricensis" A preliminary annotated check-list of the insects of Porto Rico, with descriptions of some new species. Journal of the Department of Agriculture of Porto Rico 7: 5-311.