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Erroneous Hostplant of *Colobura annulata* (Nymphalidae: Nymphalinae) in Sepp's Surinaamsche Vlinders [1848–1852] Rectified through Comparison with Original Painting By H. J. Scheller

Hajo B.P.E. Gernaat, Pieter Teunissen, Joke Van Den Heuvel, Frans Barten

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ERRONEOUS HOSTPLANT OF *COLOBURA ANNULATA* (NYMPHALIDAE: NYMPHALINAE) IN SEPP'S SURINAAMSCH E VLINDERS [1848–1852] RECTIFIED THROUGH COMPARISON WITH ORIGINAL PAINTING BY H. J. SCHELLER

Additional key words: *Pourouma*, *Cecropia*, *Carica*, Neotropics

Colobura annulata Willmott, Constantino & Hall, 2001 (Nymphalidae: Nymphalinae) (Fig. 1) is distributed from southern Mexico to western Ecuador and from Venezuela, Trinidad and the Guianas to Bolivia and Brazil (Willmott et al. 2001). As hostplants, various species of Urticaceae have been reported: *Cecropia insignis*, *C. longipes*, *C. obtusifolia*, *C. peltata*, *C. sciadophylla*, *C. virgusa* and *Pourouma cecropiifolia* (Willmott et al. 2001, Beccaloni et al. 2008, Gernaat et al. 2017).

The first hostplant mentioned, however, was *Carica papaya* (Caricaceae). The larva, pupa and imago of *Colobura annulata* were figured (as *Papilio dirce*) on pl. 145 in the “*Surinaamsche Vlinders. Papillons de Surinam*” by Jan Sepp (Sepp [1848–1852]) (Fig. 2a). As hostplant is mentioned the “Grooten Bosch-Papayboom, (*Carica Papaya*)” [Large Forest Papaya tree]. *Carica papaya* has not been confirmed to date as a hostplant of *Colobura annulata*.

Sepp was a publisher in Amsterdam, who had never been to Suriname. As he wrote in the preface of the first book (Sepp [1829–1843]), the rearing data of the *Surinaamsche Vlinders* was based upon notes and drawings by H.J. Scheller, who had been commissioned by J.G. Wichers, governor of Suriname from 1785 to 1791 (actually, it was from 1784 to 1790 (Bruijning & Voorhoeve 1976)). In the library of the Netherlands Entomological Society (NEV), presently housed in Naturalis Biodiversity Center, Leiden, The Netherlands, the original field notes and drawings of H.J. Scheller as well as written copies of his notes (probably used by researchers in the preparation phase of the *Surinaamsche Vlinders*) were found. Among these are

the ones that were used for Sepp's plate 145 and accompanying text.

The hostplant mentioned in Scheller's note as well as in the copied note is as mentioned in Sepp's text. Scheller's original drawing is shown in Fig. 2b. Below the plant has been written “H.J. Scheller pinxit” [H.J. Scheller has painted this], probably by Scheller himself as it is present on most of his drawings. The other markings (145, *Carica Papaya* etc.) have, in all probability, been added during the research prior to publication of Sepp's book, as the handwriting of some lines on the drawing is identical with the copied note and the number 145 refers to the final plate number in the *Surinaamsche Vlinders*. The discrepancies in the plants between Sepp's (Fig. 2a) and Scheller's (Fig. 2b) figures are obvious. At the lower left in Scheller's drawing is written “*Carica Papaya*. hierbij een blad” [*Carica Papaya*. hereby a leaf] and “*Carica Papaya* met een blad” [*Carica Papaya* with a leaf]. This suggests that the researchers supplied a *Carica papaya* leaf to the publisher to be figured on pl. 145.

Identification of the plant on Scheller's drawing is difficult because of the absence of flowers or fruits, but the vegetative characters indicate a *Pourouma* or *Cecropia* sp. (Urticaceae). *Pourouma* has palmate leaves and *Cecropia* peltate ones (Mori et al. 2002) and Scheller's drawing is not unambiguous in this respect. Therefore, the particular hostplant sp. of *Colobura annulata* in the northern coastal plain of Suriname (where Scheller likely performed his rearings) is yet to be identified.

We think that the erroneous identification of the hostplant is the result of a misinterpretation by Sepp's



FIG. 1. *Colobura annulata*, female, forewing length 42 mm, Rama, Suriname, 22-VII-1972, leg. D. Schilder, coll. Naturalis Biodiversity Center; dorsal (left) and ventral (right) view (from Gemaat et al. 2017).



FIG. 2. Illustrations of *Colobura annulata* on plate 145 of Jan Sepp's *Surinaamsche Vlinders* [1848-1852] (as *Papilio dirce*) (a) and the original painting of H.J. Scheller (b). The books of the *Surinaamsche Vlinders* were based upon rearings of lepidopteran larvae by H.J. Scheller in Suriname between 1784 and 1790.

researchers of the vernacular plant name mentioned by Scheller, “Grooten Bosch-Papayboom” [Large Forest Papaya tree]. To the present day in Suriname, “bospapaya” or “busipapaya” is used as a popular name for species of *Cecropia* or *Pourouma* (van Andel & Ruyschaert 2011, van 't Klooster et al. 2003). It is never used to indicate a *Carica papaya* tree located in a forest.

It is quite another thing, however, to make a new plate with an entirely different plant instead of following Scheller's data. A cursory comparison between other data of H.J. Scheller and the content of the *Surinaamsche Vlinders* indicates there are more discrepancies. A revision of the *Surinaamsche Vlinders* will be undertaken by the authors.

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LITERATURE CITED

- BECCALONI, G.W., Á.L. VILORIA, S.K. HALL & G.S. ROBINSON. 2008. Catalogue of the hostplants of the Neotropical butterflies. Catálogo de las plantas huésped de las mariposas neotropicales. The Natural History Museum. Monografías Tercer Milenio, volume 8, S.E.A., Zaragoza. 536 pp.
- BRUIJNING, C.F.A. & J. VOORHOEVE (EDS). 1977. Encyclopedie van Suriname. Elsevier, Amsterdam. 716 pp.
- GERNAAT, H.B.P.E., J. VAN DEN HEUVEL, F. BARTEN, S. RUYSSAERT & T. VAN ANDEL. 2017. A new host plant and notes on the last larval instar of *Colobura annulata* (Nymphalidae: Nymphalinae) in Suriname. J. Lep. Soc. 71: 189-192.
- MORI, S.A., G. CREMERS, C. GRACIE, J.J. DE GRANVILLE, S.V. HEALD, M. HOFF, & J.D. MITCHELL. 2002. Guide to the vascular plants of central French Guiana. Part 2. Dicotyledons. Memoirs of the New York Botanical Garden, New York, vol 76, part 2. 776 pp.
- ROBINSON, G.S., P.R. ACKERY, I.J. KITCHING, G.W. BECCALONI, & L.M. HERNÁNDEZ. 2010. HOSTS - A Database of the World's Lepidopteran Hostplants. Natural History Museum, London (<http://www.nhm.ac.uk/hosts>).
- SEPP, J. [1829-1843]. Surinaamsche vlinders. Naar het leven geteekend. Papillons de Surinam. Dessinés d'après nature. 1: 1-108, pls 1-50. J.C. Sepp en zoon, Amsterdam.
- SEPP, J. [1848-1852]. Surinaamsche vlinders. Naar het leven geteekend. Papillons de Surinam. Dessinés d'après nature. 3: i-viii, 225-328, pls 101-152. J.C. Sepp en zoon, Amsterdam.
- VAN ANDEL, T.R. & S. RUYSSCHAERT. 2011. Medicinale en rituele planten van Suriname. KIT Publishers, Amsterdam. 528 pp.
- VAN 'T KLOOSTER, C.I.E.A., J.C. LINDEMAN & M.J. JANSEN-JACOBS. 2003. Index of vernacular plant names of Suriname. Blumea suppl 15. 322 pp.
- WILLMOTT, K.R., L.M. CONSTANTINO & J.P.W. HALL. 2001. A review of *Colobura* (Lepidoptera: Nymphalidae) with comments on larval and adult ecology and description of a sibling species. Ann. Ent. Soc. Am. 185-196.

Hajo B.P.E. GERNAAT (*corresponding author*), Naturalis Biodiversity Center, P.O. Box 9517, 2300 RA Leiden, The Netherlands; email: hajo.gernaat@naturalis.nl; PIETER TEUNISSEN, Utrechtseweg 62-95, 6866 CM Heesum, The Netherlands; email: pieterteunissen@hotmail.com; JOKE VAN DEN HEUVEL, Sir Winston Churchillweg 691, Boxel, Suriname; email: jokevandenheuvel58@gmail.com; FRANS BARTEN, Coppensdijk 22, 5382 JT Vinkel, The Netherlands; email: fransbarten@gmail.com.

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