

**PROVISIONAL HOST CATALOGUE OF FIG WASPS**  
**(HYMENOPTERA, CHALCIDOIDEA)**

by

**J. T. WIEBES**

Rijksmuseum van Natuurlijke Historie, Leiden

INTRODUCTION

In this catalogue — entitled “provisional” because our knowledge of the subject is still so evidently incomplete — all species of *Ficus* mentioned as hosts of fig wasps, are listed with the Hymenoptera Chalcidoidea reared from their receptacles.

The names used for the Agaonidae are in accordance with those in Grandi's (1963b) world catalogue of this Chalcidoid family, two items excepted for nomenclatorial reasons, viz. *Blastophaga* (*B.*) *inopinata* and *B.* (*Eupristina*) *jacobsoni*. *Blastophaga* (*B.*) *puncticeps distinguenda* Grandi (1916a: 129), if considered conspecific with *B.* (*B.*) *inopinata* Grandi (1926: 355), should be called *B.* (*B.*) *d. distinguenda* Grandi, while *B.* (*B.*) *puncticeps* sensu Grandi (1916a: 129) not Mayr (1906: 156), should be indicated as *B.* (*B.*) *distinguenda inopinata* Grandi. The name *Eupristina jacobsoni* Grandi (1926: 358) cannot be used now that *Eupristina* Saunders is reduced to a subgenus of *Blastophaga* Gravenhorst (Grandi, 1963b: 334), Grandi's name being preoccupied by *B.* (*Waterstoniella*) *jacobsoni* Grandi (1916a: 126). I suggested the need for a replacement name to Prof. Grandi, who left the renaming to me. I propose *Blastophaga* (*Eupristina*) **adempta** nom. nov. for *B.* (*E.*) *jacobsoni* Grandi.

The Chalcidoidea of the family Torymidae, subfamily Sycophaginae, and most of the other inquilines, should be thoroughly revised before a critical list of their host preferences can be presented. Their nomenclature is not very stable as yet. The name *Philotrypesis ornata* Grandi (1930: 82), synonym *P. unispinosa* sensu Grandi (1921b: 128; 1926: 361) not Mayr (1906: 175) is preoccupied by *P. unispinosa ornata* Grandi (1921b: 137), a synonym of *P. unispinosa* Mayr. I propose *Philotrypesis grandii* nom. nov. for it. *Sycoryctes bakeri* nom. nov. is proposed as a replacement name for *S. philippinensis* Baker (1913: 77) not Ashmead (1904: 342).

The nomenclature of *Ficus* in Asia and Australia as used here is in accordance with Corner's recent check list (Corner, 1965). The names

used for African and American figs are based on personal information from E. J. H. Corner, or taken from DeWolf (1960). Some information received from Dr. G. P. DeWolf (1966, in litt.), has been inserted in the proof [in square brackets].

A collection of fig wasps should be documented by herbarium material of the host *Ficus*. Unfortunately, most older records have no such botanical voucher specimens. Some problems arose in instances of ambiguous host names, but most of these could be solved by considering circumstantial evidence. In giving both the original host name and the country of each entry, I hope to attain that any errors inadvertently introduced, can easily be detected when new data bring new evidence. Doubtful records, and citations obviously wrong, are indicated by an interrogation mark.

An accurate documentation of the host records is of importance. It gives both botanists and entomologists the opportunity to correlate the classifications of figs and fig wasps, and thus to induce general principles of the classification of these two groups and to reconstruct the evolution of the symbiosis (cf. Van der Vecht, 1956: 103; Wiebes, 1963a: 105-106). To tabulate all figs and their wasps mentioned in this catalogue, as was done for the Agaonidae and some Sycophaginae in earlier papers (Wiebes, 1961a: 238-239, African species; 1963a: 99-105, genera of the Agaonidae, and Indo-Australian *Ceratosolen* Mayr; 1963b: 319, *Pleistodontes* Saunders; 1964c: 83-84, *Sycoscapter* Saunders; 1965a: 95, Agaonid genera) would be rather premature.

The general impression regarding the Sycophaginae is that the Otitesellini, except for *Grandiana* Wiebes, are restricted to the subgenera *Urostigma* (Gasp.) Miq. and *Pharmacosycea* Miq.; the Sycophilini, except for *Neosycophila* Grandi, are found in figs of the subgenus *Urostigma*; the Sycophagini are found in all subgenera of *Ficus*, but apparently most in *Ficus* L. and *Sycomorus* Miq.; the genera *Philotrypesis* Förster and *Sycoryctes* Mayr are known from all subgenera except *Pharmacosycea*; *Sycoscapter* Saunders occurs in figs of *Urostigma* and *Ficus*; *Apocrypta* Coquerel, finally, appears to be restricted to *Sycomorus* and the *Ficus*-section *Sycocarpus* Miq. The classification of the Sycophaginae, however, is far from completed even in broad outlines, and the above-mentioned conclusions are to be regarded as tentative.

Notwithstanding some exceptions, which were discussed by Wiebes (1963a: 92-99; 1965a: 95-96), host specificity appears to be the rule for the Agaonidae. A tendency to the same principle is seen in the Sycophaginae, but here the present state of our taxonomic knowledge does not yet permit of generalizations. In some instance where two species of one genus, e.g.

several Indian species of *Philotrypesis*, were recorded from one species of *Ficus*, I suspect the two to be synonymous. In some other cases, where wasps from two species of figs were recorded as one and the same species, e.g. *Heterandrium brevicaudis* (Mayr), I am not convinced of their conspecificity.

Several records in literature do not make mention of a specific host name, yet those instances where several wasps were unambiguously recorded from the same fig, are of importance for our purpose. These are listed in a separate paragraph "Records from *Ficus* sp."

In all entries the Agaonids, if known, are listed first, followed by the other Chalcids in alphabetical order. Only the primary record is given; not the secondary records of the same samples. Valid names for species of *Ficus* (in bold type) and their synonyms (in italics), are listed in alphabetical order. I tried to have the catalogue complete up to and including the year 1965.

#### NOTES ON COLLECTING FIG INSECTS

It seems opportune to present here a guide to the collecting of fig insects. The following notes were distributed in mimeographed form among botanists and entomologists by Drs. Van der Vecht and Corner; recently Pagden (1963) published these directions in the *Malayan Nature Journal*. I myself had the opportunity to try the method in the field, and I found it both suiting the needs of the collector, and rewarding in the yield of fig wasps.

Fig insects are small, 1 to 2 mm long. They develop in the receptacles of *Ficus*. They must be allowed to get out of the gall flowers, and should be captured in containers. In dioecious figs, only the male receptacles contain insects.

1. Select nearly ripe figs (beginning to soften or to colour up). Place them in a collecting tube or jar on a piece of filter paper, and plug this container with cotton-wool tied by fine-meshed cotton, or close with cheese-cloth.

2. Collect the botanical specimen as completely as possible (at least a twig, a leaf, and a fig; noting whether tree, climber, strangler, epiphyte or shrub), so as to allow a botanist to have enough material for identification.

3. After the wasps have emerged, which may take some days, pour in 70 per cent alcohol. The male insects often remain in the fig. Put in a wad of paper to prevent the figs from moving and breaking the insects (do not use cotton-wool, in which the wasps will become entangled). In large figs, an opening should be cut in the wall to admit alcohol.

4. Fig insects should be preserved in 70 per cent alcohol. Dried specimens are next to useless, and require painstaking preparation to be identified.

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RECORDS FROM *FICUS* SP.

In the present paragraph only those cases are enumerated, where the authors, without identifying the host species beyond "*Ficus* sp.", clearly indicated that a number of species of fig wasps were obtained from a single fig species. In a few instances, where the host of one of the components of the fig wasp population became known afterwards, the species are listed in the main catalogue.

In the instances of wasps recorded by Mayr (1906) as "in Kamerun von Dr. Sjöstedt in Feigen gesammelt", it is not certain that the listed fig wasps belong together. Yet the composition of the "sample" is for the greater part congruent to many others of *Ceratosolen*-harbouring African figs. Mutatis mutandis, the same holds for several other samples.

It should be remarked here that a list like this, based on bibliographical research only, is particularly prone to contain errors.

*Philotrypesis* ? *caricae* (L.); ? *Sycophaga sycomori* (L.); Mayr (1885 : 153, Angola, P. Mayer no. 2). Cf. *F. carica*, *F. sycomorus*.

*Ceratosolen* sp. (as *Blastophaga* (C.) sp.); ? *Apocrypta varicolor* Mayr; ? *Apocrypta perplexa* Coquerel (as *Sycophaga p.*); Mayr (1885 : 153, Monrovia, P. Mayer no. 7). Cf. *F. fistulosa*, *F. guineensis*, *F. mauritiana*. See Mayr (1906 : 164).

? *Apocrypta perplexa* Coquerel (as *Sycophaga p.*); *Sycophaga sycomori* (L.); Mayr (1885 : 153, tropical Nile-area, P. Mayer no. 14). Cf. *F. mauritiana*, *F. sycomorus*. See Mayr (1906 : 164).

*Blastophaga* (B.) *breviventris* Mayr; ? *Sycophaga* sp.; Mayr (1885 : 153, "Ostindien", P. Mayer no. 19).

*Crossogaster triformis* Mayr; *Sycoryctes coccothraustes* Mayr; Mayr (1885 : 154, Socotra, P. Mayer no. 22). Cf. *F. salicifolia*.

*Blastophaga brasiliensis* Mayr; *Aepocerus excavatus* Mayr<sup>1)</sup>; *A. punctipennis* Mayr; *A. simplex* Mayr; *Eurytoma longiramulis* (Mayr, as *Decatoma*

1) The synonymies of the American inquilines are complicated. Their taxonomy and nomenclature will be treated in a forthcoming redescription of Mayr's type specimens.

*l.*); *Heterandrium brevicaudis* (Mayr, as *Colyostichus b.*); *H. nudiventre* Mayr (also as *Colyostichus fallax* in Müller, 1886b: 197-198); *H. biannulatum* Mayr (also Müller, 1886b: 197-198); *H. longipes* Mayr (as *Colyostichus longicaudis* Mayr); *Idarnes flavicollis* (Mayr, as *Tetragonaspis f.* and *Ganosoma robustum* Mayr); *I. gracilicornis* (Mayr, as (?) *Ganosoma attenuatum* Mayr); *Physothorax biarticulatus* (Mayr, as *Nannocerus b.*); *P. disciger* Mayr (as *Diomorus variabilis* Mayr); all recorded from F. Müller's *Ficus* 2 (Brazil), by Mayr (1885: 155) unless otherwise indicated. See Müller (1886b: 196-198). Cf. *F. gomelleira*.

*Blastophaga brasiliensis* Mayr; *Aepocerus punctipennis* Mayr; *A. simplex* Mayr; *Eurytoma breviramulis* (Mayr, as *Decatoma b.*); *Heterandrium longipes* Mayr (also as *Colyostichus longicaudis* Mayr); *H. uniannulatum* Mayr; *Idarnes brevicollis* (Mayr, as *Tetragonaspis b.*); *I. flavicollis* (Mayr, as *Tetragonaspis f.* and *Ganosoma robustum* Mayr); *I. forticornis* (Mayr, as *Tetragonaspis f.*); *I. gracilicornis* (Mayr, as (?) *Ganosoma attenuatum* Mayr); *I. parallela* (Mayr, as *Ganosoma p.*); *I. punctata* (Mayr, as *Tetragonaspis p.*); *Physothorax biarticulatus* (Mayr, as *Nannocerus b.*); *P. disciger* Mayr (as *Diomorus variabilis* Mayr); all recorded by Mayr (1885: 155, Brazil, F. Müller's *Ficus* 3). Cf. *F. gomelleira*.

*Blastophaga brasiliensis* Mayr; *Aepocerus simplex* Mayr; *Eurytoma breviramulis* (Mayr, as *Decatoma b.*); *Idarnes brevicollis* (Mayr, as *Tetragonaspis b.*); *I. flavicollis* (Mayr, as *Tetragonaspis f.*); *I. gracilicornis* (Mayr, as (?) *Ganosoma attenuatum* Mayr); *I. parallela* (Mayr, as *Ganosoma p.*); *I. punctata* (Mayr, as *Tetragonaspis p.*); *Heterandrium brevicaudis* (Mayr, as *Colyostichus b.*); *H. longipes* Mayr (also as *Colyostichus longicaudis* Mayr); *H. uniannulatum* Mayr; all recorded by Mayr (1885: 155, Brazil, F. Müller's *Ficus* 4). Cf. *F. gomelleira*.

*Blastophaga brasiliensis* Mayr; *Idarnes flavicollis* (Mayr, as *Tetragonaspis f.* and *Ganosoma robustum* Mayr); *I. gracilicornis* (Mayr, as (?) *Ganosoma attenuatum* Mayr); *I. parallela* (Mayr, as *Ganosoma p.*); *Heterandrium longipes* Mayr (as *Colyostichus longicaudis* Mayr); *H. nudiventre* Mayr; *H. tridecimarticulatum* Mayr; all recorded by Mayr (1885: 155, Brazil, F. Müller's *Ficus* 6). Cf. *F. gomelleira*.

*Blastophaga brasiliensis* Mayr; *Aepocerus absconditus* Mayr (1906: 179); *Idarnes flavicollis* (Mayr, as *Tetragonaspis f.* and *Ganosoma robustum* Mayr); *Sycophila globiceps* Mayr (1906: 185); all recorded from F. Müller's *Ficus* 7 (Brazil), by Mayr (1885: 155) unless otherwise indicated. Cf. *F. gomelleira*.

*Blastophaga bifossulata* Mayr; *Idarnes flavicollis* (Mayr, as *Tetragonaspis* f. and *Ganosoma robustum* Mayr); *Heterandrium nudiventre* Mayr; *Heterandrium* sp. (as *Colyostichus* sp.); *Sycophila globiceps* Mayr (1906: 185); recorded from Müller's *Ficus* 8 (Brazil), by Mayr (1885: 155, 249) unless otherwise indicated. Cf. *F. gomelleira*.

*Blastophaga obscura* Kirby; *Idarnes dispar* (Kirby, as *Ganosoma d.*); Kirby (1890: 537, Fernando Noronha, H. N. Ridley c.s.). One sample?

*Ceratosolen acutatus* Mayr; ? *Apocrypta longitarsus* Mayr (also as *Goniogaster* sp. ?); *Dynatogmus robustus* Mayr; *Eukoebelea camerunensis* Mayr; *Heterandrium subalatum* Mayr; *Sycophaga vicina* Mayr; *Sycoryctes sjoestedti* Mayr; Mayr (1906: 155, 164 (171), 182, 165, 178, 163, 168, resp.; Cameroons, "von dr. Sjöstedt in Feigen gesammelt"). One sample? Cf. *F. sycomorus*, and the records by Grandi (below).

*Blastophaga* (*B.*) *puncticeps* Mayr; *Philotrypesis unispinosa* Mayr; *Sycoryctes subtilis* Mayr; Mayr (1906: 157, 176, 170, resp.; Norsa Kembangan I., S. of Java, C. Aurivillius nos. 191 a.o.). Cf. *F. fulva*.

*Blastophaga* (*Eupristina*) *aurivillii* (Mayr, as *Eupristina a.*); *Sycoryctes excellens* Mayr; *Sycoryctes tibialis* Mayr; Mayr (1906: 162, 166, 167, resp.; Timor, C. Aurivillius nos. 194 a.o.).

*Aepocerus sundaicus* Mayr; *Camarothorax obscurus* Mayr; Mayr (1906: 180, 184, resp.; Norsa Kembangan I., S. of Java, C. Aurivillius no. 8).

*Ceratosolen feae* Grandi; *Sycophaga sycomori insularis* Grandi; Grandi (1916a: 176, 239, resp.; Cape Verde Is., L. Fea). One sample? Cf. *F. sycomorus*.

*Ceratosolen flabellatus* Grandi; *Apocrypta guineensis* Grandi; Grandi (1916a: 159, 285, resp.; French Guinea, F. Silvestri). One sample? Cf. next entry.

*Apocrypta guineensis* Grandi; *Sycophaga afflicta* Grandi; Grandi (1916a: 285, 252, resp.; French Guinea, F. Silvestri). One sample? Cf. previous entry.

*Ceratosolen acutatus* Mayr; *Apocrypta longitarsus brachycephala* Grandi; *Sycophaga vicina* Mayr; Grandi (1916a: 182, 279, 248, resp.; Cameroons, F. Silvestri). One sample? Cf. the earlier records by Mayr, and *F. sycomorus*.

*Ceratosolen megacephalus* Grandi; *Sycophaga silvestrii tenebrosa* Grandi;

Grandi (1917b : 30, 42, resp.; Uganda, E. Bayon). One sample? Cf. *F. ferruginea*.

*Elisabethiella allotriozoonoides* (Grandi, as *Blastophaga a.*); *Otitesella epicarioides* Grandi; *Philotrypesis erythraea* Grandi; Grandi (1917b : 15; 1921a : 310; 1921b : 128; resp.; Eritrea, G. Rossetti). One sample?

*Agaon fasciatum* Waterston; *Sycoecus thaumastocnema* Waterston; Waterston (1914 : 249, Uganda, G. D. H. Carpenter).

LIST OF FICUS MENTIONED AS HOSTS OF FIG WASPS

*acanthophylla* Vahl, as used by Grandi (1921a : 316, Java) is probably *F. sumatrana* Miq.

*acidula* King = *F. racemosa* L. v. *elongata* (King) Barrett.

**adenosperma** Miq. v. **chaetophora** (Warb.) Corner

*Ceratosolen adenospermae* Wiebes (1965b : 225, Terr. New Guinea).

**altissima** (?; *F. altissima* Bl. is an Indo-Malayan species!).

*Heterandrium brevicaudis* (Mayr); Peck (1951 : 519, *Colyostichus b.*, Florida). Cf. *F. aurea*, *F. citrifolia*.

**ampelas** Burm. f.

*Blastophaga (B.) sumatrana* Grandi (1926 : 353, Sumatra).

*Philotrypesis jacobsoni* Grandi (1926 : 359, Sumatra).

From this fig Grandi (1923c : 112, no locality mentioned [probably Sumatra], leg E. Jacobson) recorded *Blastophaga* sp. and *Philotrypesis* sp. (see above); *Neosycophila* sp.; ? *Sycophila* sp.; ? genus sp.

*angustifolia* Miq., var. of *F. deltoidea* Jack.

**antiquorum** Willd. [a synonym of *F. sycomorus* L.]

*Eukoebelea gigas* Mayr (1906 : 165, Yemen).

? *Sycophaga sycomori* (L.); Mayr (1885 : 193, Egypt). Cf. *F. sycomorus*.

**arnottiana** Miq.

*Blastophaga (B.) arnottiana* Joseph (1953c : 277, India).

*Terastiozoon incompletum* Joseph (1959 : 99, India).

*asperrima* Roxb. = *F. exasperata* Vahl.

**aurantiacea** Griff. v. **parvifolia** Corner

*Blastophaga (B.) contubernalis* Grandi (1927b : 312, *F. megacarpa* Merr., Philippines).

**aurea** Nutt.

*Blastophaga (Secundeisenia) mexicana* (Ashmead); Peck (1951 : 519,

*Secundeisenia m.*, Florida); Butcher (1964: 235, *Secundeisenia m.*, Florida; also *F. laevigata*). See Condit (1963: 117).

*Heterandrium brevicaudis* (Mayr); Butcher (1964: 236, *Colyostichus b.*, Florida; also *F. laevigata*). Cf. *F. altissima*.

*Idarnes carne* Walker; Peck (1951: 520, Florida); Butcher (1964: 236, Florida; also *F. laevigata*). Cf. *F. laurina*.

*Neosycophila bicolor* (Ashmead); Butcher (1964: 236, Florida; also *F. laevigata*).

*Physothorax russelli* Crawford (1910: 204, Florida); Butcher (1964: 236, Florida; also *F. laevigata*).

Eurytomid of uncertain generic assignment; Butcher (1964: 237, Florida; also *F. laevigata*).

#### **auriculata** Lour.

*Ceratosolen emarginatus* Mayr; Grandi (1927c: 174, *C. effractarius* Grandi from *F. roxburghi*, Indo-China); Joseph (1954b: 409, *F. roxburghii* Wall., India). Cf. *F. oligodon* (see Corner, 1962: 395; Wiebes, 1963a: 97).

? *Ceratosolen ? crassitarsus* (Mayr); Grandi (1923a: 299, *F. roxburghi*, Singapore). Probably not true (see Wiebes, 1963a: 83). Cf. *F. lepigarpa*, *F. ribes*.

*Philotrypesis longicaudata* Mayr (1906: 176, from same sample as *Ceratosolen emarginatus*, Indo-China).

*Sycoryctes roxburghi* Joseph (1957: 115, *F. roxburghi* Wall., India).

*F. auriculata* was the object of a study by Cunningham (1887, *F. roxburghii* Wall., India). For comment, see Van der Pijl (1934: 179-181); Wiebes (1963a: 94).

*australis* Willd. = *F. rubiginosa* Desf. ex Vent.

*barnesii* Merr. = *F. botryocarpa* Miq.

#### **beccarii** King v. **latifolia** Corner

*Ceratosolen humatus* Wiebes (1963a: 78, Borneo; also *F. subterranea*). See Wiebes (1963a: 97-98).

#### **benghalensis** L.

This is the same as *F. indica* L., not *F. indica* sensu King, which is *F. sundaica* Bl. (see Corner, 1960: 381-384, 389). It is not in all host records clear, whether *F. benghalensis* or *F. sundaica* was meant. All records are listed here. Cf. also *F. pubescens*.



The generic classification and the synonymy of many of the inquilines are still confused, although some problems were solved by Joseph (1957).

*Blastophaga (Eupristina) masoni* (Saunders, 1882b : 163, *Eupristina m.* from *F. indica*, India; not *F. religiosa* as recorded by Saunders, 1882a : 144); ? Grandi (1928a : 81, *E. cf. grassii* Grandi from "*F. bengalensis* (= *F. indica* L.)", India); ? Joseph (1953c : 283, *E. grassii* Grandi, India).

*Micranisa pteromaloides* (Walker, 1871 : 60, *Idarnes p.* from *F. indica*, Hindostan).

*Philotrypesis transiens* (Walker, 1871 : 60, *Idarnes t.* from *F. indica*, Hindostan).

*Philotrypesis travancoricus* Joseph (1954a : 90, India).

*Sycobia bethyloides* Walker (1871 : 60, *F. indica*, Hindostan); Joseph (1957 : 130, India).

*Sycobiella saundersii* Westwood (1883a : 34, *F. indica*, Hindostan); Joseph (1957 : 127, India); Wiebes (1964a : 24, India).

*Sycophila decatomoides* Walker (1871 : 60, *F. indica*, Hindostan).

*Sycophila megastigmoides* Walker (1871 : 60, *F. indica*, Hindostan).

*Sycophilodes moniliformis* Joseph (1959 : 93, India).

*Sycoscaptella affinis* Westwood (1883a : 36, *F. indica*, Hindostan).

*Sycosapter insignis* Saunders in Westwood (1883a : 35, *F. indica*, Hindostan); Joseph (1953a : 81, *Indothymus crenulatus* Joseph, India); ?Walker (1871 : 60, *Idarnes stabilis* Walker from *F. indica*, Hindostan); ?Grandi (1928a : 81, *S. stabilis* (Walker) from "*F. bengalensis* (= *F. indica* L.)", India).

*Terastiozoon keralensis* Joseph (1957 : 126, India).

*Walkerella temeraria* Westwood (1883a : 33, *F. indica*, Hindostan). Could be a species of *Terastiozoon*.

### **benjamina** L.

*Blastophaga (Eupristina) adempta* nom. nov. for *Eupristina jacobsoni* Grandi (1926 : 359, Sumatra); ?Joseph (1954b : 414, *E. koningsbergeri* Grandi, India). Cf. *F. benjamina* v. *nuda* (see Wiebes, 1963a : 99, *F. benjamina* v. *comosa* King).

*Philotrypesis distillatoria* Grandi (1926 : 364, Sumatra).

*Philotrypesis tridentata* Joseph (1954a : 93, India).

*Terastiozoon benjamini* Joseph (1957 : 123, India).

### **benjamina** L. v. **nuda** (Miq.) Barrett

*Blastophaga (Eupristina) koningsbergeri* (Grandi, 1917a : 56, *Eupristina k.* from *F. benjamina* L. v. *comosa* King, Java). Cf. *F. benjamina* (see Wiebes, 1963a : 98-99).

**bernaysii** King

*Ceratosolen hooglandi* Wiebes (1963a : 38, Terr. New Guinea).

**botryocarpa** Miq.

*Ceratosolen corneri* Wiebes (1963a : 62, *F. endothrix*, *F. barnesii*, Luzon, Philippines; ? also *F. botryocarpa* v. *subalbidoramea*); Williams (1928: 10, *Ceratosolen* sp. from *F. barnesii*, Philippines; experiments with *C. notus* on *F. botryocarpa*). Cf. *F. nota*.

**botryocarpa** Miq. v. **subalbidoramea** (Elmer) Corner

*Ceratosolen* ? *corneri* Wiebes (1963a : 62, Mindoro, Philippines). Cf. *F. botryocarpa*.

**brachypoda** Hutch.

This fig is perhaps not specifically distinct from *F. ovata* Vahl (see Wiebes, 1963a : 99).

*Agaon paradoxum modestum* Wiebes (1961a : 231, Uganda).

*Seres armipes breviceps* Wiebes (1961a : 233, Uganda).

**callosa** Willd.

Williams (1928 : 13, emergence of wasps, *F. malunuenensis*, Philippines).

**calopilina** Diels

*Ceratosolen calopilinae* Wiebes (1963a: 59, Terr. New Guinea).

*canescens* Kurz, not in Corner (1965); nomen nudum? Cf. *F. hispida*.

**capensis** Thunb.

*Ceratosolen capensis* Grandi (1955a : 92, S. Africa). [cf. *F. guineensis*]

**carica** L.

*Blastophaga* (*B.*) *psenes* (L.), selected records: Mayr (1885 : 153, *B. grossorum* Gravenhorst, Italia, Afghanistan; also *F. persica* Boiss., Persia (in Mayer, 1882 : 569, as *F. geraniifolia* Miq.); *F. serrata* Forsk. and *F. pseudocarica* Miq., cf. *F. palmata*); Oliff (1893 : 431, Australia); Grandi (1920a, 1929, Italia); Nikolskaja (1934: 129, Russia); Waterston (1920: 128, no host mentioned, S. Africa); Buscalioni & Grandi (1936, 1938, Italia); Joseph (1954b : 408, India); Condit & Enderud (1956); Joseph (1958, France).

? *Idarnotorymus pulcher* Masi; Hoffmeyer (1931 : 278, ? symbiont of *B. psenes*). Probably incorrect.

*Philotrypesis caricae* (L.), selected records: Mayr (1885 : 153, Italia, Afghanistan; also *F. persica* Boiss., Persia (in Mayer, 1882 : 569, as *F.*

*geraniifolia* Miq.); *F. serrata* Forsk., cf. *F. palmata*); Grandi (1921b : 118; 1930 : 72, Italia); Nikolskaja (1934 : 129, Russia); Condit & Enderud (1956); Joseph (1958, France).

?*Sycoryctes* sp., Mayr (1885 : 153, Afghanistan).

*Sycoscapteridea raoi* Joseph (1957 : 119, India).

**cereicarpa** Corner

*Ceratosolen pilipes* Wiebes (1963a : 71, Borneo).

*chaetophora* Warb., var. of *F. adenosperma* Miq.

**chartacea** Wall. ex King

*Blastophaga* sp.; Wiebes (1963a : 97). Probably not *Ceratosolen hewitti* Waterston as recorded by Grandi (1927b : 317, *C. imbecillus* Grandi, Singapore). Cf. *F. fistulosa*.

**chrysolepis** Miq.

*Blastophaga* sp.;; Wiebes (1963a : 84, *F. ? longipedunculata*, Philippines). This wasp is allied to *Ceratosolen megarhopalus* Grandi.

**citrifolia** P. Mill.

*Blastophaga* (*Secundeisenia*) *mexicana* (Ashmead); Wolcott (1948 : 771, *Secundeisenia m.* from *F. laevigata*, Puerto Rico); Butcher (1964 : 235, *Secundeisenia m.* from *F. laevigata*, Florida; also *F. aurea*). See Condit (1963 : 117).

*Blastophaga* (*Valentinella*) *tonduzi* Grandi (1919 : 50, *F. hemsleyana* Standley, Costa Rica). Cf. *F. verrucosa*.

?*Blastophaga insularis* Ashmead; Wolcott (1948 : 771, *F. laevigata*, Puerto Rico).

*Heterandrium brevicaudis* (Mayr); Butcher (1964 : 236, *Colyostichus b.* from *F. laevigata*, Florida; also *F. aurea*). Cf. *F. altissima*.

*Idarnes carme* Walker; Butcher (1964 : 236, *F. laevigata*, Florida; also *F. aurea*). Cf. *F. laurina*.

*Neosycophila bicolor* (Ashmead, 1900 : 253, *F. pedunculata*, Florida); Butcher (1964 : 236, *F. laevigata*, Florida; also *F. aurea*).

*Physothorax pallidus* Ashmead (1900 : 255, *F. pedunculata*, Florida); Peck (1951 : 527, *F. laevigata*, Florida).

*Physothorax russelli* Crawford; Butcher (1964 : 236, *F. laevigata*, Florida; also *F. aurea*).

*Sycophila incerta* Ashmead (1900 : 253, *F. pedunculata*, Florida).

Eurytomid of uncertain generic assignment; Butcher (1964: 237, *F. laevigata*, Florida; also *F. aurea*).

*columnaris* C. Moore & F. v. M. = *F. macrophylla* Desf. ex Vent.

*coombsii* Warb. = *F. trigonata* L.

*comosa* Roxb. = *F. benjamina* L. v. *nuda* (King) Barrett.

**complexa** Corner

*Blastophaga* sp.; Wiebes (1964c : 79).

**congesta** Roxb.

*Ceratosolen notus* (Baker); Wiebes (1963a : 54, *F. satterthwaitei*, Philippines; also *F. nota*); Williams (1928 : 12, *Ceratosolen* sp. from *F. satterthwaitei* Elmer, Philippines). See Wiebes (1963a : 97).

**conocephalifolia** Ridley

*Blastophaga* (*B.*) *jacobsi* Wiebes (1964c : 75, Terr. New Guinea).

*Sycosapter conocephalus* Wiebes (1964c : 79, Terr. New Guinea).

**copiosa** Steud.

*Blastophaga* sp.; Wiebes (1964c : 79).

*Grandiana* sp.; Wiebes (1961b : 250, Solomon Is.).

*Sycosapter* sp.; Wiebes (1964c : 83).

**coronata** Spin.

*Blastophaga* sp.; Wakefield (1960 : 257, *Kradibiella* sp. from *F. stephanocarpa* Warb., Australia).

?*Paraceratosolen latipennis* Girault (1915b : 312, recorded from same fig as *Philotrypesis silvensis* Girault, Australia).

*Philotrypesis silvensis* Girault; Wakefield (1960 : 257, *F. stephanocarpa* Warb., Australia).

**costaricana** (Liebm.) Miq.

*Blastophaga* (*Valentinella*) *estherae* Grandi (1919 : 33, Costa Rica).

**cotinifolia** H. B. & K.

*Blastophaga* (*Valentinella*) *kraussi* Grandi (1952b : 49, Mexico).

*covellii* Roxb., not in Corner (1965); nomen nudum? Cf. *F. racemosa*.

*crassinervia* Def. ex Willd. = *F. trigonata* L.

*crassior*, as used by Hoffmeyer (1932 : 197, Antilles) may have been *F. trigonata* L.

**crassiramea** Miq.

*Blastophaga (Waterstoniella) jacobsoni* Grandi (1917a : 32, *F. procera* Reinw. v. *crassiramea* King, Java).

**crassiuscula** Warb. ex Standley [a synonym of *F. insipida* Willd.]

*Blastophaga (Tristaniella) astoma* Grandi (1920b : 260, Costa Rica).

*cuneata* Miq., var. of *F. ribes* Reinw.

*cunia* (B. Ham.) Miq. = *F. semicordata* B. Ham. ex J. E. Sm.

*cuspidata* Reinw., subsp. of *F. sinuata* Thunb.

*cylindrocarpa* Diels, var. of *F. xylosycia* Diels.

**cynaroides** Corner

*Ceratosolen sordidus* Wiebes (1963a : 30, Solomon Is.).

**dammaropsis** Diels

*Ceratosolen abnormis* Wiebes (1963a : 32, West New Guinea; also *F. dammaropsis* v. *obtusata* Corner, Terr. New Guinea).

**deltoidea** Jack.

*Blastophaga (B.) quadrupes* Mayr (1885 : 154, *F. diversifolia* Bl., Java; also *F. spatulata* Miq., Malaya); Grandi (1926 : 353, *F. diversifolia* Bl., Sumatra).

**depressa** Bl.

Williams (1928 : 14, giant galls of inquilines, *F. pruniformis* Bl., Philippines).

*didyma* Miq. = *F. lepigarpa* Bl., but *Covellia didyma* as used by Mayr (1906 : 155, Java) probably is the same as *F. hispida* L.

**dimorpha** King

*Ceratosolen constrictus* (Mayr); Wiebes (1963a : 12, Sumatra; also *F. fistulosa* Reinw., see p. 96-97).

*diversifolia* Bl. = *F. deltoidea* Jack.

*dolaria* Mart. = *F. gommeira* K. & B.

**drupacea** Thunb. v. **pubescens** (Roth) Corner

The record of one of the Agaonidae probably was due to confusion of the host with *F. racemosa* L., according to Wiebes (1963a : 98; 1965a : 95). This may also apply to some of the Sycophaginae.

*Blastophaga (Eupristina) belgaumensis* (Joseph, 1954b : 415, *Eupristina b.* from *F. mysorensis* Hayne, India).

*Ceratosolen fusciceps* (Mayr); Joseph (1953c : 282, *C. mysorensis* Joseph from *F. mysorensis* Hayne, India). Cf. *F. racemosa*.

*Arachonia plumosa* Joseph (1957 : 110, *F. mysorensis* Hayne, India).

*Parakoebelea thalakovadiensis* Joseph (1957 : 101, *F. mysorensis* Hayne, India).

*Philotrypesis longispinosa* Joseph (1954a : 66, *F. mysorensis* Hayne, India).

*Sycobia mathewi* Joseph (1957 : 133, *F. mysorensis* Hayne, India).

*Sycobiella claviscapa* Joseph (1957 : 128, *F. mysorensis* Hayne, India).

*Sycosapter triformis* Joseph (1957 : 106, *F. mysorensis* Hayne, India).

**dzumacensis** Guillaum.

*Blastophaga* (*B.*) *boschmai* Wiebes (1964a : 25, New Caledonia).

*Sycobiella boschmai* Wiebes (1964a : 19, New Caledonia).

*ehretioides* F. v. M. ex Benth. = *F. variegata* Bl.

**elastica** Roxb. ex Hornem.

*Blastophaga* (*B.*) *clavigera* Mayr (1885 : 154, Java).

*elongata* King, var. of *F. racemosa* L.

*endothrix* Warb = *F. botryocarpa* Miq.

**enormis** Mart. ex Miq.

*Blastophaga* (*Valentinella*) *aemula* Grandi (1938a : 48, *F. luschnatiana* Miq., Brazil). [cf. *F. monkii*]

**erecta** Thunb.

*Blastophaga* (*B.*) *nipponica* Grandi (1921a : 305, Japan).

*Sycosapter inubiae* (Ishii, 1934 : 89, *Goniogaster i.*, Japan).

*eugenioides* Miq. = *F. obliqua* Forst. f.

**exasperata** Vahl

*Blastophaga* (*B.*) *gestroi* Grandi (1928a : 79, *F. asperrima* Roxb., India); Joseph (1953c : 277, *F. asperrima* Roxb., India).

*Philotrypesis quadrisetosa* (Westwood, 1883a : 44, ? *Sycoscaptella q.* from *F. asperrima*, Ceylon); Joseph (1954a : 51, *F. asperrima* Roxb., India).

*Sycosapteridea longipalpus* (Joseph, 1953a : 73, *Neosycoecus l.* from *F. asperrima* Roxb., India).

**ferruginea** Desf.? = *F. rubiginosa* Desf. ex Vent. The samples recorded from Africa (!) harbour the following wasps.

*Ceratosolen silvestrianus* Grandi (1916a : 165, French Guinea, Senegal).

*Apocrypta longitarsus robusta* Grandi (1916a : 281, Senegal). Cf. *F. sycomor*.

*Sycophaga silvestrii* Grandi (1916a : 243, Senegal).

**fistulosa** Reinw. ex Bl.

*Ceratosolen constrictus* (Mayr, 1885 : 154, *Blastophaga* (C.) c. from *F. subopposita* Miq., Java); Wiebes (1963a : 12-13, Java; also *F. fistulosa* v. *tengerensis* O. K., Borneo, and *F. dimorpha* King; see p. 96-97).

*Ceratosolen hewitti* Waterston; Wiebes (1963a : 14, Malaya). Cf. *F. chartacea* Wall. ex King (see Wiebes, 1963a : 96-97).

Corner (1958 : 18) mentioned the successful introduction of figs and pollinating insects to Hawaii.

?*Apocrypta perplexa* Coquerel; Mayr (1885 : 154, *Sycophaga* p. from *F. subopposita* Miq., Java). See Mayr (1906 : 154). Cf. *F. mauritiana*.

*Apocrypta varicolor* (Mayr, 1885 : 154, *Goniogaster* v. from *F. subopposita* Miq., Java; also *F. glomerata*). Cf. *F. guineensis*.

*Philotrypesis spinipes* Mayr (1885 : 154, *F. subopposita* Miq., Java; also *F. lepigarpa*). Cf. *F. septica*.

**forstenii** Miq.

*Blastophaga* (*Eupristina*) *bakeri* (Grandi, 1927b : 325, *Eupristina* b., Philippines); Williams (1928 : 8-10, *Eupristina* b., Philippines; experiments on *F. microcarpa*).

*foveolata* Wall. ex Miq. = *F. sarmentosa* B. Ham. ex J. E. Sm.

**francisci** Winkler

*Ceratosolen josephi* Wiebes (1963a : 74, Borneo).

**fraseri** Miq.

*Blastophaga* (B.) *ghigii* Grandi (1916b : 149, *F. stenocarpa* F. Muell., Australia).

**fulva** Reinw. ex Bl.

*Blastophaga* (B.) *distinguenda inopinata* Grandi; Grandi (1917a : 8, B. ? *puncticeps* Mayr, Java); Grandi (1926 : 355, *B. inopinata* Grandi, Sumatra).

*Philotrypesis grandii* nom. nov. for *P. ornata* Grandi (1930); Grandi (1921b : 137, *P. unispinosa* Mayr, Java); Grandi (1926 : 361, *P. unispinosa* Mayr, Sumatra).

*garciae* Elmer, var. of *F. variegata* Bl.

*garciniaefolia* Miq. = *F. subcordata* Bl.

*geraniifolia* Miq., mentioned by Mayer (1882 : 569) as a synonym of *F. persica* Boiss. (= *F. carica* L.).

*gibbosa* Bl., subsp. of *F. tinctoria* Forst. f.

*glabella* Bl., var. of *F. virens* Ait.

**glandifera** Summerh.

*Pleistodontes blandus* Wiebes (1963b : 303, Solomon Is.).

*glomerata* Roxb. = *F. racemosa* L.

**gnaphalocarpa** Steud. ex Miq.

As indicated by Wiebes (1963a : 100), some of the records from this fig may be incorrect. I am not sure about the generic classification of all species.

*Elisabethiella waneii* (Risbec, 1951a : 386, *Blastophaga w.*, Senegal).

*Apocryptophagus bambeyi* Risbec (1951a : 321, Senegal).

*Otitesella gnaphalocarphae* Risbec (1951a : 335, Senegal).

*Seres longicephalus* Risbec (1951a : 383, Senegal).

*Sycophaga valentinae* Grandi (1952a : 34, Senegal); ?Risbec (1951a : 389, *S. silvestrii* Grandi, Senegal).

*Sycoscapter bambeyi* (Risbec, 1951a : 329, *Goniogaster b.*, Senegal).

species near *F. gnaphalocarpa*, Risbec (1951b).

*Idarnes nigra* Risbec (1951b : 1125, Ivory Coast).

*Sycoscapter cadenati* (Risbec); Risbec (1951b : 1126, *Goniogaster c.*, Ivory Coast).

**gomelleira** K. & B.

*Blastophaga brasiliensis* Mayr; Mayr (1906 : 185; Müller's *Ficus* v, from which *B. brasiliensis* was recorded by Mayr (1885 : 155, Brazil), is *F. dolaria*).

The following wasps were also recorded from *Ficus* v, Brazil, by Mayr (1885 : 155) unless otherwise indicated.

*Aepocerus inflaticeps* Mayr (also as *A. emarginatus* Mayr); *A. excavatus* Mayr; *A. dolariae* Mayr (1906 : 178, *F. dolaria*); *A. flavomaculatus* Mayr; *A. punctipennis* Mayr; *A. simplex* Mayr.

*Heterandrium longipes* Mayr (also as *Colyostichus longicaudis* Mayr).

*Eurytoma aequiramulis* (Mayr, as *Decatoma a.*); *E. breviramulis* (Mayr, (Mayr, as *Decatoma b.*).

*Idarnes flavicollis* (Mayr, as *Tetragonaspis f.*); *I. forticornis* (Mayr, as *Tetragonaspis f.*); *I. gracilicornis* (Mayr, as *Tetragonaspis g.*, and (?) *Ganosoma attenuatum* Mayr); *I. parallela* (Mayr, as *Ganosoma p.*).

*Physothorax annuliger* Mayr (also as *Plesiostigma bicolor* Mayr); *P.*



*disciger* Mayr (also as *Diomorus variabilis* Mayr); *P. serratus* Mayr (1906 : 186, *F. dolaria*).

*Sycophila brasiliensis* Mayr (1906 : 185, *F. dolaria*).

*gracilis* Kurz = *F. urnigera* Miq.

**grossularioides** Burm. f.

Corner (1958: 18, successful introduction of fig and insects to Hawaii).

**guineensis** Miq. [*F. guineensis* Stapf. = *F. capensis* Thunb.]

*Blastophaga unicolor* Mayr (1885 : 153, Nubia). Nomen nudum.

*Apocrypta* ? *varicolor* (Mayr, 1885 : 153, *Goniogaster* ? v., Nubia). Cf. *F. fistulosa*, *F. racemosa*.

?*Sycophaga sycomori* (L.); Mayr (1885 : 153, Nubia). Cf. *F. sycomorus*.

*guttata* (Wight) King = *F. laevis* Bl. v. *macrocarpa* (Miq.) Corner.

*hauili* Blanco = *F. septica* Burm. f.

*hemsleyana* Standley = *F. citrifolia* P. Mill., but the record by Grandi (1919 : 50, Costa Rica) may also have been *F. verrucosa* Liebm.

**hesperidiiformis** King

*Pleistodontes plebejus* Wiebes (1963b : 313, Terr. New Guinea; also *F. sclerotiana* Diels, Papua).

**heterophylla** Linn. f.

The records from the Philippines (Grandi, 1927b : 326, *Blastophaga browni* (Ashmead); Ashmead, 1905 : 401, *Philotrypesis ficicola* Ashmead) probably belong to *F. ulmifolia* Lam. (see Wiebes, 1963a : 96).

**heteropleura** Bl.

*Blastophaga* (*B.*) *dubia* Grandi (1926 : 375, *F. rostrata* Lamk. v. *urophylla* Wall., Java). Cf. *F. sinuata* (see Wiebes, 1963a : 96).

**hirta** Vahl.

*Blastophaga* (*B.*) *javana* Mayr (1885 : 154, *F. hirta* v. *setosa* Miq., Java).

*Sycoryctes simplex* Mayr (1885 : 154, *F. hirta* v. *setosa* Miq., Java).

The record of *Sycophaga sycomori* (L.) from *F. hirta* Vahl by Mayr (1885 : 193) is probably not true. First, the fig wasp is probably some species of *Eukoebelea* Ashmead; second, the host may have been *F. variegata* Bl.

*F. hirta* was the object of a study by Treub (1902, Java).

**hispida** Linn. f.

*Ceratosolen* s. *solmsi* (Mayr, 1885 : 154, *F. canescens* Kurz, Java); Mayr (1906 : 155, *Covellia didyma* Miq., Java); Grandi (1926 : 358, *C. ?marchali*

Mayr, Java); Wiebes (1963a : 66, Java, Malaya). See Wiebes (1963a : 97).

*Ceratosolen solmsi marchali* Mayr; Grandi (1928a : 74, *C. berlandi* Grandi, India); Joseph (1953c : 282, India); Wiebes (1963a : 68, Ceylon, India, China, Malaya, Queensland).

*Apocrypta bakeri* (Joseph, 1952 : 80, *Lipothymus b.*, India); ?Mayr (1906 : 171, *Goniogaster* sp. from *Covellia didyma* Miq., Java).

*Philotrypesis pilosa* Mayr (1906 : 175, *Covellia didyma* Miq., Java); Grandi (1926 : 362, Java).

*Philotrypesis* sp.; Grandi (1928a : 79, India); ?Joseph (1954a : 60, *P. pilosa* Mayr, India).

**hispidioides** S. Moore v. **succosa** Corner

*Ceratosolen dentifer* Wiebes (1963a : 44, Terr. New Guinea).

*indica* sensu King = *F. sundaica* Bl.

*indica* L. = *F. benghalensis* L.

*infectoria* Willd., sensu auctt. = *F. virens* Ait.

**insipida** Willd.

*Blastophaga (Valentinella) aerumnosa* Grandi (1938a : 63, *F. vermifuga* Miq., Brazil). [cf. *F. crassiuscula*, *F. maxima*]

*integrifolia* Elmer = *F. variegata* Bl. v. *sycomoroides* (Miq.) Corner.

**involucrata** Bl.

*Lipothymus sumatranus* Grandi; Grandi (1955b : 103, Java).

**iodotricha** Diels

*Ceratosolen iodotrichae* Wiebes (1963a : 51, Terr. New Guinea).

**itoana** Diels

*Ceratosolen armipes* Wiebes (1963a : 27, Terr. New Guinea).

*japonica* Miq., var. of *F. superba* Miq.

*jimenesii* Standley = *F. tuerckheimi* Standley.

*laevigata* Vahl = *F. citrifolia* P. Mill.

**laevis** Bl. v. **macrocarpa** (Miq.) Corner

*Blastophaga (B.) gomberti* Grandi (1928a : 70, *F. guttata* Kurz, India).

**lanata** Bl.

*Blastophaga (B.) boldinghi* Grandi (1917a : 14, Java).

**lapathifolia** (Liebm.) Miq.

*Blastophaga (Julianella) aguilaris* Grandi (1919 : 25, Costa Rica).

*latifolia* Corner, var. of *F. beccarii* King.

**laurina** (?; was *F. laurifolia* Lam. meant?).

*Blastophaga* sp.; Girault (1918 : 129, Barbadoes).

?*Idarnes carme* Walker; Girault (1918 : 129, Barbadoes). Cf. *F. aurea*, *F. citrifolia*.

**lepigarpa** Bl.

*Ceratosolen vechti* Wiebes (1963a : 39, Java, Sumatra, ?Borneo).

?*Ceratosolen* ?*crassitarsus* (Mayr); Grandi (1923a : 299, *F. roxburghi*, Singapore). This form should perhaps be referred to *C. vechti* (see Wiebes, 1963a : 83). The host record is probably incorrect.

Mayr (1885) evidently confused *F. hispida*, *F. lepigarpa* (*Covellia didyma*), and *F. septica*; see Wiebes (1963a : 97, 98). His records from these figs are probably incorrect. Cf. *F. fistulosa*, *F. hispida*, *F. septica*.

*Sycophaga sycomori* (L.); Mayr (1885 : 154, Java) is probably a species of *Eukoebelea* from *F. septica*. Cf. *F. sycomorus*.

*longipedunculata* (Merr.) Elmer = *F. chrysolepis* Miq.

*lucescens* Miq. = *F. racemosa* L. v. *elongata* (King) Barrett.

**lukanda** Welw.

*Agaon scobiniferum* Waterston (1920 : 134, Uganda). The generic classification is uncertain.

*Seres levis* Waterston (1920 : 136, Uganda).

*luschnatiana* Miq. = *F. enormis* Mart. ex Miq.

**macrophylla** Desf. ex Pers.

*Pleistodontes froggatti* Mayr (1906 : 160, Australia, host uncertain); Froggatt (1901 : 449, *P. imperialis* Saunders, Australia; also *F. rubiginosa*); Grandi (1916b : 159, Australia); Pemberton (1921 : 297, Australia); Wiebes (1963b : 307, Australia; also *F. columnaris*; list of records from Hawaii).

?*Pleistodontes imperialis* Saunders (1882b : 163, Australia; also *F. australis*); Girault (1915b : 311, Australia). The records from *F. macrophylla* are probably incorrect; cf. *F. rubiginosa*.

*Pembertonia ficicola* Gahan in Gahan & Ferrière (1947 : 285, Australia).

*Philotrypesis aterrima* Saunders (1883 : 389, Australia). Cf. *F. obliqua* v. *petiolaris*.

*Sycoryctes australis* (Froggatt, 1901 : 452, *Idarnes a.*, Australia; also *F. rubiginosa*); Mayr (1906 : 171, Australia).

**magnoliifolia** Bl. See remark under *F. nervosa*.

*malunuensis* Warb. = *F. callosa* Willd.

*mariannensis* Merr. = *F. proluxa* Forst. f.

*marquesensis* F. B. H. Brown = *F. proluxa* Forst. f. v. *subcordata* Corner.

**mauritiana** Lam.

*Ceratosolen coecus* (Coquerel, 1855 : 367, *Sycocrypta c.* from *F. terragena*, Réunion).

*Apocrypta perplexa* Coquerel (1855 : 367, *F. terragena*, Réunion).

*Apocryptophagus explorator* (Coquerel, 1855 : 367, ?*Chalcis e.* from *F. terragena*, Réunion).

*Sycophaga paradoxa* (Coquerel, 1855 : 367, *Apocrypta p.* from *F. terragena*, Réunion).

The insufficient descriptions of the species, which have not been rediscovered, caused considerable confusion. Many specimens from various localities were identified with *Apocrypta perplexa* or *A. paradoxa*, but this is probably not correct.

**maxima** P. Mill.

Müller (1886a : 57) identified his *Ficus* 1 (Brazil) with *Pharmacosycea radula* or a closely related species. DeWolf (1960 : 149) cited *Ficus radula* H. & B. ex Willd. as synonym of *F. maxima* P. Mill. The distribution is given (DeWolf, 1960 : 150) as "Southern Mexico to and through the Amazon basin". The locality where F. Müller collected the wasps is Blumenau in the state Sta. Catharina, i.e. much more to the south. [According to DeWolf this could quite possibly be *F. insipida*]

*Tetrapus americanus* Mayr (1885 : 155, F. Müller's *Ficus* 1, Brazil).

*Critogaster nuda* Mayr (1885 : 155, F. Müller's *Ficus* 1, Brazil); Müller (1886b : 194, *Ficus* 1, Brazil).

*Critogaster piliventris* Mayr (1885 : 155, F. Müller's *Ficus* 1, Brazil); Müller (1886b : 194, *Ficus* 1, Brazil).

*Critogaster singularis* Mayr (1885 : 155, also as *Trichaulus versicolor* Mayr, F. Müller's *Ficus* 1, Brazil); Müller (1886b : 194, *Ficus* 1, Brazil).

*megacarpa* Merr. = *F. aurantiacea* Griff. v. *parvifolia* Corner.

*merrilli* Elmer = *F. ribes* Reinw. v. *cuneata* (Miq.) Corner.

**microcarpa** Linn. f.

*Blastophaga (Eupristina) saundersi* (Grandi, 1916c : 228, *Eupristina s.* ♂ from *F. retusa* L. v. *nitida* King, India). The ♀ were recorded from *F. religiosa* L., India, from which *Blastophaga quadraticeps* Mayr is known. I presume the record of *Eupristina* from *F. microcarpa*, and that of *Blastophaga* from *F. religiosa*, to be correct (see Wiebes, 1963a : 96). There were two more species of *Eupristina* recorded from this fig, the synonymies of which are not yet clear. Williams (1928 : 9, *F. retusa*, Philippines) tried *Blastophaga (Eupristina) bakeri* (Grandi) on this fig; see also Williams (1928 : 13-14) for notes on galls of parasites and inquiline.

*Blastophaga (Eupristina) verticillata* (Waterston); Grandi (1926 : 358, *F. retusa* L., Sumatra, Philippines); Williams (1928 : 13-14, *Grandiella* sp. from *F. retusa* L., Philippines).

*Blastophaga (Eupristina) okinavensis* (Ishii, 1934 : 86, *Euprista* (!) o. from *F. retusa* L. v. *nitida* Thunb., RyuKyus).

*Eufroggattiana okinavensis* (Ishii, 1934 : 95, *Eufroggattia* o. from *F. retusa* L. v. *nitida* Thunb., RyuKyus).

*Odontofroggattia* (!) *gajimaru* Ishii (1934 : 97, *F. retusa* L. v. *nitida* Thunb., RyuKyus).

*Otitesella yashiroi* Ishii (1934 : 97, *F. retusa* L. v. *nitida* Thunb., RyuKyus).

*Philotrypesis emeryi* Grandi (1926 : 363, *F. retusa* L., Sumatra).

*Philotrypesis okinavensis* Ishii (1934 : 91, *F. retusa* L. v. *nitida* Thunb., RyuKyus).

*Sycoscapter gajimaru* (Ishii, 1934 : 89, *Goniogaster* g. from *F. retusa* L. v. *nitida* Thunb., RyuKyus).

Timberlake (1922 : 5-6, *F. retusa*, Hong Kong) recorded 22 species of Chalcid flies from this fig, viz., 1 Agaonid, 6 inquilines, 5 Sycophaginae ("Idarninae"), 3 species of *Ormyrus*, and 7 species of *Decatoma*.

#### **microdictya** Diels

*Ceratosolen* sp.; Wiebes (1963a : 83, Papua).

#### **minahassae** (Teysm. & Vr.) Miq.

*Ceratosolen pygmaeus* Grandi (1927b : 320, Philippines); Wiebes (1963a : 8, Philippines).

Williams (1928 : 14 nota 1, parasites and inquilines running over figs).

#### **moderata** Corner

*Ceratosolen moderatus* Wiebes (1963a : 47, Borneo).

#### **monkii** Hassl. [= *F. enormis* (Mart. ex Miq.) Miq.]

?*Blastophaga cabrerai* Blanchard (1944 : 305, Argentine).

#### **montana** Burm. f.

*Blastophaga (B.) tentacularis* Grandi (1926 : 356, *F. quercifolia* Roxb., Java).

*mysorensis* Heyne ex Roth = *F. drupacea* Thunb. v. *pubescens* (Roth) Corner.

#### **nervosa** Heyne ex Roth

Williams (1928 : 14, pl. 1 fig. 3, giant cells of inquilines, Philippines). Note that Corner (1965 : 31) does not record *F. nervosa* from the Philip-

pinus, so Williams' identification may be incorrect. According to Corner (1966, in litt.) Williams' plant may have been *F. magnoliifolia* Bl.

*nitida* Thunb.; *F. retusa* L. v. *nitida* (Thunb.) Miq. = *F. microcarpa* Linn. f.

**nota** (Blanco) Merr.

*Ceratosolen notus* (Baker, 1913 : 72, *Blastophaga n.*, Philippines); Williams (1928 : 9-12, 14, Philippines; experiments on *F. botryocarpa*); Wiebes (1963a : 54, Philippines; also *F. satterthwaitei*). Cf. *F. congesta* (see Wiebes, 1963a : 97).

*Apocrypta larvalis* (Baker, 1913 : 74, *Agaonella l.*, Philippines); Williams (1928 : 15, Philippines).

*Eukoebelea nota* (Baker, 1913 : 76, *Sycophaga n.*, Philippines); Williams (1928 : 14-15, *Sycophaga n.*, Philippines).

*Philotrypesis similis* Baker (1913 : 80-81, incl. *P. ashmeadii* Baker and *P. collaris* Baker, Philippines); Williams (1928 : 15, *P. ashmeadii* and *P. collaris*, Philippines); Grandi (1930 : 163, Philippines).

*Sycoryctes bakeri* nom. nov. for *S. philippinensis* Baker (1913 : 78, Philippines).

*nuda* King, var. of *F. benjamina* L.

**obliqua** Forst. f.

*Blastophaga (B.) greenwoodi* Grandi; Greenwood (1929 : 347, Fiji I.; host, see Wiebes, 1963b : 309).

*Pleistodontes imperialis* Saunders; Pemberton (1944 : 17, *F. eugenioides* F. v. M., Hawaii); Wiebes (1963b : 308, *F. eugenioides*, Australia; also *F. rubiginosa* Desf. and *F. platypoda* A. Cunn. ex Miq. v. *petiolaris* Benth.). Cf. *F. obliqua* v. *petiolaris*.

**obliqua** Forst. f. v. **petiolaris** (Benth.) Corner

*Pleistodontes imperialis* Saunders; Wiebes (1963b : 308, *F. platypoda* A. Cunn. ex Miq. v. *petiolaris* Benth., Australia; also *F. rubiginosa* Desf. and *F. eugenioides*). Cf. *F. obliqua*.

*Philotrypesis aterrima* (Saunders); Grandi (1930 : 167, *F. platypoda petiolaris*, Australia). Cf. *F. macrophylla*.

**obpyramidata** King

*Ceratosolen nugatorius* Grandi; Wiebes (1963a : 42, Malaya).

**obscura** Bl.

*Blastophaga (B.) giacomini* Grandi (1926 : 354, *Ficus* sp., Java); Grandi

(1955c : 110, identification of this *Ficus* sp. with "*F. obscura* Bl. (= *F. pisifera* Wall. sensu King)").

*obtusa* Corner, var. of *F. dammaropsis* Diels.

**oligodon** Miq.

*Ceratosolen emarginatus* Mayr; Wiebes (1963a : 16, Malaya). Cf. *F. auriculata* (see Corner, 1962 : 395; Wiebes, 1963a : 97).

**ovata** Vahl

*Agaon paradoxum* Dalman; Grandi (1952a : 31, Senegal). Cf. *F. brachypoda*.

*Philotrypesis africana* Grandi; Grandi (1952a : 45, Senegal).

*Seres armipes* Waterston; Grandi (1952a : 34, Senegal). Cf. *F. brachypoda*.

*Sycobiella monstrosa* Grandi; Grandi (1952a : 45, Senegal).

**padana** Burm. f.

*Blastophaga* (B.) *intermedia* Grandi (1926 : 357, *F. toxicaria* L., Sumatra).

*Philotrypesis thompsoni* Grandi (1926 : 361, *F. toxicaria* L., Sumatra).

*padifolia* H. B. & K. = *F. pertusa* Linn. f.

**palmata** Forsk.

Mayr (1885 : 153, desert near Red Sea, and Iran) recorded two samples from *F. serrata* Forsk. (= *F. exasperata* Vahl), which, however, in Mayr's sense probably is the same as *F. palmata* (see Wiebes, 1963a : 96). Cf. *F. carica*.

*Blastophaga* (B.) *voidi* Joseph (1954b : 408, India); ?Mayr (1885 : 153, *B. grossorum* Gravenhorst from *F. pseudocarica* Miq., Abyssinia, "*Ficus carica* L. vel potius *F. serrata* Forsk., Iran, and "*F. serrata* Forsk. (*palmata* Forsk.)", desert near Red Sea).

*Philotrypesis palmata* Joseph (1954a : 77, India); Mayer (1882 : 568, "*Ichneumon*" sp. from *F. virgata* Roxb.); ?Mayr (1885 : 153, *P. caricae* Hass. from "*Ficus carica* L. vel potius *serrata* Forsk.", Iran, and "*F. serrata* Forsk. (*palmata* Forsk.)", desert near Red Sea).

*Sycoscapteridea forsteni* Joseph (1957 : 117, India).

*panifica* Del. = *F. sur* Forsk.

*parvifolia* Corner, var. of *F. aurantiacea* Griff.

*pedunculata* Dryand = *F. citrifolia* P. Mill.

From *Urostigma pedunculatum* Miq. (not in Corner, 1965) Mayer (1882 : 568, no locality) recorded *Sycophaga* sp. and "*Ichneumon*" sp.

*persica* Boiss. = *F. carica* L.

**pertusa** Linn. f.

*Blastophaga (Valentinella) silvestrii* Grandi (1919 : 44, *F. padifolia* H. B. K., Costa Rica; not *B. (V.) tristani* Grandi as recorded on p. 39, see Grandi, 1920b : 251).

**petersii** Warb.

*Elisabethiella stueckenbergi* (Grandi, 1955a : 87, *Blastophaga (E.) s.*, S. Africa).

*Phagoblastus barbarus* Grandi (1955a : 106, S. Africa).

*petiolaris* Benth., var. of *F. obliqua* Forst. f.

*pisifera* Wall. sensu King = *F. obscura* Bl.

**platyphylla** Del.

*Philocaenus barbatus* Grandi (1952a : 45, Senegal).

*platypoda* A. Cunn. ex Miq. v. *petiolaris* Benth. = *F. obliqua* Forst. f. v. *petiolaris* (Benth.) Corner.

**pleurocarpa** F. v. M.

*Pleistodontes regalis* Grandi (1952b : 67, Australia).

**popenoei** Standley, see remark under *F. velutina*.

**praestans** Corner

*Ceratosolen praestans* Wiebes (1963a : 49, New Britain).

**pritchardii** Seem.

*Ceratosolen marshalli* Grandi; Wiebes (1963a : 8, identification of host mentioned by Grandi (1931 : 11), also *Ficus* sp. near *storcki*, Fiji I.).

*procera* Bl. v. *crassiramea* (Miq.) King = *F. crassiramea* Miq.

**prolixa** Forst. f.

*Megastigmus mariannensis* Fullaway (1946 : 204, *F. mariannensis*, Guam). Cf. *F. prolixa* v. *subcordata*.

**prolixa** Forst. f. v. **subcordata** Corner

*Blastophaga (Valentinella) mumfordi* Grandi (1938b : 201, probable host *F. marquesensis*, Marquesas Is.).

*pruniformis* Bl. = *F. depressa* Bl.

*pseudocarica* Miq. = *F. palmata* Forsk. (not *F. carica* L. as mentioned by Wiebes, 1963a : 96; see Corner, 1965 : 36).



**pseudopalma** Blanco

*Ceratosolen bakeri* Grandi (1927b : 314, Philippines); Williams (1928 : 12-13, Philippines); Wiebes (1963a : 32, Philippines).

*pubescens*, as used by Mayer (1882 : 568) is the host of:

*Blastophaga* (B.) *mayeri* Mayr (1885 : 153, *Ficus* sp., Bali).

*F. pubescens* Roth is given by Corner (1965 : 14) as a synonym of *F. benghalensis* L.

**pungens** Reinw.

*Ceratosolen nanus* Wiebes (1963a : 9, Terr. New Guinea).

*quercifolia* Roxb. = *F. montana* Burm. f.

**racemosa** L.

*Ceratosolen fusciceps* (Mayr, 1885 : 154, *F. glomerata*, Java); Mayr (1906 : 153, *F. covellii*, *F. glomerata*, *Urostigma lucescens* Miq., Java); Grandi (1916c : 200, *C. fuscipes* from *F. glomerata* Roxb., Java); ?Girault (1925 : [2], *Blastophaga nigriscapus* Girault from *F. glomeratus* Willd., Australia); ?Girault (1927 : 338, *Blastophaga niveipes* Girault from *F. glomeratus*, Australia); Grandi (1928a : 79, *F. glomerata* Roxb., India); Joseph (1953a : 61, *F. glomerata* Roxb., India); Joseph (1953b : 137, *F. glomerata* Roxb., India); Joseph (1953c : 282, *C. mysorensis* Joseph from *F. mysorensis* Hayne, India; see Wiebes, 1963a : 98; 1965a : 95); Wiebes (1963a : 17-19; also *F. acidula* King, *F. racemosa* L. v. *elongata* (King) Barrett; Ceylon, India, Malaya, Borneo, Java, Bali, Timor, Australia).

?*Blastophaga* sp.; Mayr (1885 : 153, *F. riparia* Hochst., Abyssinia).

*Apocrypta westwoodi* Grandi (1916a : 272; 1916c : 234; *F. glomeratus*, Ceylon, Java); Westwood (1883b : 379, *A. perplexa* Coquerel from *F. glomerata*, Ceylon); ?Mayr (1906 : 171, *Goniogaster* sp. from *F. covellii*, Java); Grandi (1928a : 80, *F. glomerata* Roxb., India); Joseph (1953a : 61, *Lipothymus glomeratus* Joseph from *F. glomerata* Roxb., India). Cf. *F. mauritiana*.

?*Apocrypta varicolor* (Mayr, 1885 : 154, *Goniogaster* v. from *F. glomerata*, Java; but on p. 241 the species is described from *F. subopposita* Miq.). Cf. *F. fistulosa*, *F. guineensis*.

*Eukoebelea brevitarsis* (Grandi); Joseph (1953a : 61, *Sycophaga b.* from *F. glomerata* Roxb., India); Joseph (1953b : 136, *Sycophaga b.* from *F. glomerata* Roxb., India).

*Eukoebelea testacea* (Mayr, 1885 : 154, *Tetragonaspis t.* from *F. glomerata*, Java; ? also *Sycophaga sycomori* (L.)); Grandi (1917a : 60,

*Sycophaga tristis* Grandi from *F. glomerata* Roxb., Java); Grandi (1928a : 79, *F. glomerata* Roxb., India); ?Joseph (1953a : 60, *Sycophagella agraeensis* Joseph from *F. glomerata* Roxb., India).

*Parakoebelea stratheni* Joseph (1957 : 100, *F. glomerata* Roxb., India).

*Sycoryctes patellaris* Mayr (1885 : 154, *F. glomerata*, Java; also from *F. umbellata*).

?*Sycophaga* sp.; Mayr (1885 : 153, *F. riparia* Hochst., Abyssinia).

*radula* H. & B. ex Willd. = *F. maxima* P. Mill.

### **religiosa** L.

*Blastophaga* (*B.*) *quadriceps* Mayr (1885 : 154, Singapore); Westwood (1883a : 43, *B.* sp., Ceylon); Grandi (1923a : 297, Ceylon); Joseph (1953c : 277, India); Johri & Konar (1955 : 384, India); Wiebes (1963a : 96, Israel); Galil (1965, Israel).

?*Blastophaga* (*Eupristina*) *masoni* (Saunders, 1882a : 144, *Eupristina m.*). Corrected in Saunders (1882b : 163, host *F. indica*).

?*Blastophaga* (*Eupristina*) *saundersi* (Grandi, 1916c : 228, *Eupristina s.* ♀, India; the ♂ was recorded from *F. retusa* L. v. *nitida* King). Probably incorrect (see Wiebes, 1963a : 96).

*Pleistodontes semiruficeps* Girault; Grandi (1952c : 96). Probably incorrect (see Wiebes, 1963a : 96).

*Otitesella digitata* Westwood (1883a : 40, Ceylon); Grandi (1922 : 20, Ceylon).

*Otitesella religiosa* Westwood (1883a : 41, Ceylon).

*Sycosapterella anguliceps* (Westwood, 1883a : 42, ?*Sycosaptella a.*, Ceylon).

*Sycosapter gracilipes* Westwood (1883a : 42, Ceylon).

*Sycosapteridea monilifera* (Westwood, 1883a : 41, *Sycosapter m.*, Ceylon).

Westwood (1883a : 53, Ceylon) recorded several unidentified species from this fig, viz., the *Blastophaga* sp. referred to above, and *Idarnella* sp. ♀, ?*Idarnes* sp. ♀, ?*Eurytoma* sp. ♀, "a small, winged, brassy-green, polished species, with the ovipositor not exerted", and ?*Idarnes* or ?*Idarnella* ♂.

*retusa*, as used until recently = *F. microcarpa* Linn. f., not genuine *F. retusa* L., which has been known as *F. truncata* Miq.

### **rhodesiaca** Warb.

*Ceratosolen myersi* Grandi (1955a : 97, Rhodesia).

*Sycophaga callani* Grandi (1955a : 100, Rhodesia).

**ribes** Reinw. ex Bl.

*Ceratosolen crassitarsus* (Mayr, 1885 : 154, *Blastophaga* (C.) c., Java): Grandi (1917a : 46, Java); Wiebes (1963a : 35, Java). Cf. *F. auriculata*, *F. ribes* v. *cuneata* (see Wiebes, 1963a : 97), *F. lepigarpa*.

*Philotrypesis minuta* Mayr (1885 : 154, Java); Grandi (1921b : 157, Java).

**ribes** Reinw. ex Bl. v. **cuneata** (Miq.) Corner

*Ceratosolen gracilis* Wiebes (1963a : 35, Philippines; also *F. merrilli*). Cf. *F. ribes* (see Wiebes, 1963a : 97).

*riparia* (Hochst.) Miq. = *F. racemosa* L. v. *elongata* (King) Barrett.

*rostrata* Lam. = *F. sinuata* Thunb.

*rostrata* Lam. v. *urophylla* (Wall. ex Miq.) Val. = *F. heteropleura* Bl. *roxburghii* Wall. ex Miq. = *auriculata* Lour.

**rubiginosa** Desf. ex Vent.

*Pleistodontes imperialis* Saunders (1882b : 164, *F. australis*, Australia; also *F. macrophylla*); ?Froggatt (1901 : 452, Australia; also *F. macrophylla*); Mayr (1906 : 160, Australia); Wiebes (1963b : 307-308, Australia; also *F. obliqua*; list of records from Hawaii). The records from *F. macrophylla* are probably not true.

*Sycoryctes australis* (Froggatt, 1901 : 452, Australia; also *F. macrophylla*).

Cf. *F. ferruginea*.

**salicifolia** Vahl

*Elisabethiella socotrensis* (Mayr, 1885 : 154, *Blastophaga* s., Socotra).

*Crossogaster triformis* Mayr (1885 : 154, Socotra).

*Otitesella serrata* Mayr (1885 : 154, Socotra).

*Sycoryctes coccothraustes* Mayr (1885 : 154, Socotra).

*Sycoryctes truncatus* Mayr (1885 : 154, Socotra).

**salomonensis** Rech.

*Ceratosolen boschmai* Wiebes (1963a : 23, Bougainville I.).

**sarmentosa** B. Ham. ex J. E. Sm.

*Blastophaga* (B.) *callida* Grandi (1927a : 24, *F. foveolata* Wall., Japan).

*satterthwaitei* Elmer = *F. congesta* Roxb.

*sclerotaria* Diels = *F. hesperidiiformis* King.

**scabra** Forst. f.

*Blastophaga* (B.) ?*browni* (Ashmead); Grandi (1928b : 70; 1931 : 8; *Ficus* sp., Fiji). This fig (W. G. no. 244) was identified by Corner (1963, in litt.) with *F. scabra* Forst. f. Cf. *F. ulmifolia*.

**semicordata** B. Ham. ex J. E. Sm.

*Ceratosolen graveleyi* Grandi (1916c : 207, *F. cunia* Hann., India); Joseph (1954b : 409, *F. cunia* Hann., India).

*Eukoebelea cunia* Joseph (1957: 103, *F. cunia* Hann., India).

*Philotrypesis dunia* Joseph (1954a: 83, *F. cunia* Hann., India).

*Sycoryctes trifemmensis* Joseph (1957 : 113, *F. cunia* Hann., India).

**semivestita** Corner

*Ceratosolen grandii* Wiebes (1963a : 21, Terr. New Guinea).

**septica** Burm f.

In Mayr (1885), *F. septica* was confused with *F. lepigarpa* Bl.

*Ceratosolen bisulcatus* (Mayr, 1885 : 154, *F. lepigarpa* Bl., Java); Wiebes (1963a : 81, Java, Bali, Terr. New Guinea). See Wiebes (1963a : 98).

*Ceratosolen jucundus* Grandi (1927b: 323, *F. hauili* Blanco, Philippines); Wiebes (1963a : 83, Philippines, Borneo; also *F. hauili*).

*Philotrypesis spinipes* Mayr (1885 : 154, *F. lepigarpa* Bl., Java; also *F. subopposita* Miq.).

?*Sycophaga sycomor* (L.); Mayr (1885 : 154, *F. lepigarpa* Bl., Java). Cf. *F. sycomorus*.

*serrata* Forsk. = *F. exasperata* Vahl, but as used by Mayr (1885, Near East) it is probably the same as *F. palmata* Forsk.

*setosa* Bl. = *F. hirta* Vahl.

**sinuata** Thunb.

*Blastophaga* (B.) *longicornis* Grandi (1926 : 354, *F. rostrata* Lamk., Sumatra). Cf. *F. heteropleura* (see Wiebes, 1963a : 96), *F. sinuata cuspidata*.

*Philotrypesis tristis* Grandi (1926 : 360, *F. rostrata* Lamk., Sumatra).

**sinuata** Thunb. subsp. **cuspidata** (Reinw.) Corner

*Blastophaga* (B.) *valentinae* Grandi (1917a : 21, *F. cuspidata* Reinw., Java).

*spathulata* Miq. = *F. deltoidea* Jack. v. *angustifolia* (Miq.) Corner.

*stenocarpa* F. v. M. ex Benth. = *F. fraseri* Miq.

*stephanocarpa* Warb. = *F. coronata* Spin.

**sterrocarpa** Diels

*Pleistodontes immaturus* Wiebes (1963b : 317, S.E. New Guinea).

**stolonifera** King

*Ceratosolen* sp.; Wiebes (1963a : 84, Borneo).

species near *storcki*, Wiebes (1963a : 9), see under *F. pritchardii* Seem.

*strigosa* Corner, var. of *F. uncinata* Becc.

**stupenda** Miq.

*Blastophaga* (*Waterstoniella*) sp. + *Ceratosolen* sp.; Wiebes (1965a : 95, Borneo).

*subalbidoramea* Elmer, var. of *F. botryocarpa* Miq.

**subcongesta** Corner

*Ceratosolen orientalis* Wiebes (1963a : 57, New Britain; also ?*F. subcongesta* v. *symmetrica* Corner).

**subcongesta** Corner v. **symmetrica** Corner

*Ceratosolen* ? *orientalis* Wiebes (1963a : 57, Bougainville I.; also *F. subcongesta* Corner).

**subcordata** Bl.

*Terastiozoon jacobsoni* Grandi (1921a : 314, *F. garciniaefolia* Miq., Java).

*subcordata* Corner, var. of *F. prolixa* Forst. f.

*subopposita* Miq. = *F. fistulosa* Reinw. ex Bl.

**subterranea** Corner

*Ceratosolen humatus* Wiebes (1963a : 78, Borneo; also *F. beccarii* King v. *latifolia* Corner). See Wiebes (1963a : 97-98).

*succosa* Corner, var. of *F. hispidioides* S. Moore.

**sumatrana** Miq.

?*Micrognathophora leptoptera* Grandi (1921a : 316, *F. acanthophylla* Vahl, Java). *F. acanthophylla* Summerh. (= *F. copiosa* Steud. v. *pubescens* Corner) nor *F. acamptophylla* Miq. occur in Java. The fig from which Grandi recorded *M. leptoptera*, may have been *F. pseudoacamptophylla* Val. which is *F. sumatrana*.

**sundaica** Bl., see discussion under *F. benghalensis*.

**superba** Miq. v. **japonica** Miq.

*Blastophaga* (*B.*) *ishiiana* Grandi (1923b : 102, *F. wightiana*, Japan).

*Acophila mikii* Ishii (1934 : 98, *F. wightiana*, Formosa).

*Otitesella ako* Ishii (1934 : 92, *F. wightiana*, Japan).

**sur** Forsk.

*Ceratosolen occultiventris* (Mayr, 1885 : 153, *Blastophaga* (*C.*) *o.* from *F. panifica* Del., tropical Nile-area).

*sycomoroides* Miq., var. of *F. variegata* Bl.

**sycomorus** L.

*Ceratosolen arabicus* Mayr (1906 : 154, Yemen); Grandi (1917b : 25, Eritrea); Masi (1951 : 210, Ethiopia).

?*Ceratosolen galili* Wiebes (1964b : 188, *F. ?sycomorus*, Ethiopia, ?Tanganyika).

*Apocrypta longitarsus* Mayr; Grandi (1916a : 276, Eritrea); Wiebes (1964b : 188, Israel). Cf. *F. ferruginea*.

*Sycophaga sycomori* (L.), selected records: Westwood (1840 : 222, *S. crassipes* Westwood "ex ficibus Aegypti"); Saunders (1878 : 319, *S. crassipes* Westwood, Egypt); Grandi (1917b : 39, Eritrea); Carmin & Scheinkin (1932 : 183, Israel). The many records by Mayr (1885) of *S. sycomori* from several species of figs, are probably incorrect. They may belong to various species of *Eukoebelea* Ashmead. Cf. *F. antiquorum*, *F. guineensis*, *F. lepicarpa*, *F. racemosa*, *F. septica*. The record from *F. umbellata* (or *F. hirta*) was referred to *Sycophaga spinitarsus* Mayr (1906 : 163). Cf. *F. variegata*.

*symmetrica* Corner, var. of *F. subcongesta* Corner.

*tengerensis* Miq., var. of *F. fistulosa* Reinw. ex Bl.

*terrigena* Bory probably is *F. mauritiana* Lam.

**tinctoria** Forst. f. subsp. **gibbosa** (Bl.) Corner

*Neosycophila omeomorpha* (Grandi, 1923b : 108; 1923c; *F. gibbosa* Bl., Sumatra).

*toxicaria* L. = *F. padana* Burm. f.

**treubii** King

*Ceratosolen brongersmai* Wiebes (1963a : 68, Borneo).

**trigonata** L.

*Blastophaga* (*Julianella*) *bruneri* Grandi (1934 : 197, *F. combsii* Warb., Cuba).

?*Blastophaga danorum* Hoffmeyer (1932 : 197, *F. ?crassior*, Antilles; according to Grandi (1963b : 329): "forsitan *F. crassinervia* Desf."). Cf. *F. velutina*.

**tuerckheimi** Standley

*Blastophaga (Valentinella) jimenezi* Grandi (1919 : 56, *F. jimenezi* Standley, Costa Rica; subgeneric classification uncertain).

**ulmifolia** Lam.

*Blastophaga (B.) browni* (Ashmead); Grandi (1927b : 326, Philippines; also *F. heterophylla* L., Philippines). Cf. *F. scabra*.

*Philotrypesis ficicola* Ashmead; Brown (1906 : 694, parasite of *Kradibia browni* Ashmead, Philippines).

*Sycoryctes philippinensis* Ashmead not Baker; Brown (1906 : 694, parasite of *Kradibia browni* Ashmead, Philippines).

*umbellata* hort. Bog. nec Vahl, as used by Mayr (1885, Java) is probably *F. variegata* Bl. (see Wiebes, 1963a : 97).

*umbonata* Reinw. ex Bl., used by Mayer (1882 : 570, "*Ficus umbellata* Vahl (? , *umbonata* Reinw.?)"), probably was *F. variegata* Bl. The *Blastophaga* sp. recorded by Mayer is *Ceratosolen appendiculatus* (Mayr).

**uncinata** Becc. v. **strigosa** Corner

*Ceratosolen albulus* Wiebes (1963a : 75, Borneo).

**urnigera** Miq.

*Blastophaga* sp.; Mayer (1882 : 570, *F. gracilis* Kurz, no locality).

*urophylla* Wall. = *heteropleura* Bl.

**vallis-choudae** Del.

*Ceratosolen carayoni* Grandi (1963a : 237, Ivory Coast).

**variegata** Bl.

*Ceratosolen appendiculatus* (Mayr, 1885 : 154, *Blastophaga (C.) a.* from *F. umbellata* hort. Bog. nec Vahl, Java); Mayer (1882 : 570, *Blastophaga* sp. from "*Ficus umbellata* Vahl (? *umbonata* Reinw. ?)", Java); Mayr (1906 : 153, *C. striatus* Mayr from *F. variegata* Bl. var., Java); ?Girault (1915b : 311, *C. ficophaga* Girault from *Ficus* sp., Australia); Grandi (1917a : 33, *C. striatus* Mayr and *C. s. notandus* Grandi, Java); Williams (1928 : 12, *Ceratosolen* sp. from *F. integrifolia* Elmer, Philippines); Wiebes (1963a : 20-21, Java, Philippines; also *F. ehretioides* F. v. M., Australia; *F. variegata* v. *garciae* (Elmer) Corner, v. *sycomoroides* (Miq.) Corner, *F. inte-*

*grifolia* Elmer, Philippines; *F. viridicarpa* Corner). See Wiebes (1963a : 97).

?*Eukoebelea spinatarsus* (Mayr, 1906 : 163, *Sycophaga* s. from *F. variegata* Bl. var., Java); Mayr (1885 : 154, *Sycophaga sycomori* Hass. from *F. umbellata* hort. Bog. nec Vahl, Java). Mayr's (1885 : 193, also nota; 1906 : 163) references to *F. hirta* (P. Mayer, no. 8a) evidently concern *F. umbellata*, which as used there, is probably *F. variegata*.

*Philotrypesis bimaculata* Mayr (1885 : 154, *F. umbellata* hort. Bog. nec Vahl, Java).

*Sycoryctes patellaris* Mayr (1885 : 154, *F. umbellata* hort. Bog. nec Vahl, Java; also *F. glomerata*).

Girault (1915a : 282, 286) described several Torymidae from the same fig as *Ceratosolensia ficophaga* Girault viz., *Eukoebelea concisiventris* (Girault, as *Koebelea c.*); *E. fusca* (Girault, as *Koebelea f.*); *Goniogastrella caudatus* Girault; *Idarnomorpha subaenea* Girault.

**vasculosa** Wall. ex Miq.

*Blastophaga* sp.; Wiebes (1936b : 319, Singapore; not *Pleistodontes* as recorded by Wiebes, 1963a : 100).

**velutina** Willd.

*Blastophaga (Julianella) torresi* Grandi (1920b : 264, Costa Rica). De Wolf (1960 : 153) states that *F. popenoei* Standley from Central America, has been identified with *F. velutina*, but according to him the two are distinct. *F. "velutina"* from Panama is *F. trigonata* L. (DeWolf, 1960 : 160).

*vermifuga* Miq. = *F. insipida* Willd.

**verrucosa** (Liebm.) Hemsley, see remark under *F. hemsleyana* (see DeWolf, 1960 : 159).

**verticillaris** Corner

*Ceratosolen bimerus* Wiebes (1965b : 229, Solomon Is.).

**virens** Ait.

*Blastophaga (B.) coronata* Grandi (1928c : 80, *F. infectoria* Roxb., Sumatra); Joseph (1953c : 270, *B. constabularis* Joseph from *F. infectoria* Roxb., India). Cf. *F. virens* v. *glabella*.

*Decatoma fici* Joseph (1959 : 91, *F. infectoria* Roxb., India).

*Otitesella minima* Joseph (1957 : 127, *F. infectoria* Roxb., India).

*Sycobiomorpha bimasculinum* Joseph (1959 : 96, *F. infectoria* Roxb., India).



*Sycoscapter infectoria* (Joseph, 1953a : 77, *Indothymus i.* from *F. infectoria* Roxb., India).

*Sycoscapteridea indica* (Joseph, 1953a : 67, *Neosycoecus i.* from *F. infectoria* Roxb., India).

*Terastiozoon sanctijohani* Joseph (1957 : 124, *F. infectoria* Roxb., India).

**virens** Ait v. **glabella** (Bl.) Corner

*Blastophaga* (B.) *glabellae* Hoffmeyer (1932 : 192, *F. glabella* Bl., Sumatra). Cf. *F. virens*.

*virgata* Roxb. = *F. palmata* Forsk.

**viridicarpa** Corner

*Ceratosolen appendiculatus* (Mayr); Wiebes (1963a : 21, Malaya; also *F. variegata* Bl. and varieties). See Wiebes (1963a : 97).

**vogelii** Miq.

*Allotriozone heterandromorphum* Grandi (1916a : 206, Senegal, French Guinea; not *F. ferruginea* as mentioned on p. 190).

*Otitesella africana* Grandi (1921a : 311, French Guinea).

*Philotrypesis selenitica* Grandi (1921b : 161, French Guinea).

**wassa** Roxb.

*Blastophaga* sp.; Wiebes (1964c : 79).

*Grandiana wassae* Wiebes (1961b : 245, Terr. New Guinea).

*wightiana* auctt. = *F. superba* Miq. v. *japonica* Miq.

**xylosycia** Diels

*Pleistodontes ?rieki* Wiebes (1963b : 311, Papua). Cf. *F. xylosycia* v. *cylindrocarpa*.

**xylosycia** Diels v. **cylindrocarpa** (Diels) Corner

*Pleistodontes rieki* Wiebes (1963b : 309, Bougainville I.; ? also *F. xylosycia* Diels).

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