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**Jumping Plant-Lice of the Family Psyllidae Latreille
(Hemiptera: Psylloidea) from the Center Region of Cameroon:
Faunistics, Phenology and Host Plants**

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Abstract: The prospections undertaken in the center province of Cameroon permitted to study the biodiversity of psyllids of the Psyllidae family. The psyllids were sampled during a period of 24 months (January 2006-December 2007) in different localities on various host plants. The damages caused by the psyllids on their host plants were recorded and photographed. This survey documented 45 species belonging to 24 genera and 7 subfamilies. Nine genera and 36 species remain undescribed. The proliferation period of each species depends on the phenology of host plants. In the center region of Cameroon, the Fabaceae constitutes the family with the largest number of associated psyllid species. The present survey permitted to enrich the biodiversity of the psyllids of the Psyllidae family. It is important to study the taxonomy of undescribed psyllids species and the bionomic of these psyllids, pests of cultivated plants and commercial timbers in the center region of Cameroon.

Key words: Psyllidae, faunistic, Center-Cameroon, pest control

INTRODUCTION

Cameroon is situated between latitudes 2° and 13° North and longitudes 9° and 16° East. It is divided into ten administrative regions: Adamaoua, Center, East, Far-North, Littoral, North, North-West, West, South and South-West. The center region (68,953 km²) is dominated by an equatorial climate with four seasons: two rainy seasons (August-November; March-July) and two dry seasons (November-March; July-August). In the center region, the vegetation consists mainly of forest and savannah both with rich and diversified vegetation. Some of the plants are used as commercial timber or for pharmaceutical and ethnobotanical purposes. These plants, in particular new growth and young plants are often attacked by a variety of insects (Tamesse, 2005).

Among these insect pests are the plant sap-sucking jumping plant-lice or psyllids (Hemiptera, Psylloidea) which are predominantly associated with dicotyledons (Hodkinson, 1974; Burckhardt, 1994, 2005; Hollis, 2004). Psyllids can cause damage to their hosts in various ways: the removal of large quantities of plant sap, when psyllid populations are high; the induction of leaf necrosis or abortive terminal buds by inserting their mouth parts into plant tissue; the deformation of leaves, buds or flowers including induction of

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galls; the soiling of leaves, flowers or fruits by secreting honeydew which may stimulate fungal growth; the transmission of phytoplasmal or viral diseases. The most serious damage is caused by larvae or by adults transmitting plant diseases.

The world fauna comprises currently some 3000-3500 described psyllid species, though this may represent less than half the number of existing species. Psyllids are probably most species rich in the tropics and South temperate regions but the fauna from these regions is only incompletely known. For the Afrotropical region not much taxonomic literature is available; the most important publications are by Vondracek (1963), Capener (1968, 1970, 1973), Hollis (1984, 1987), Hollis and Broomfield (1989), Burckhardt and Mifsud (2003), Burckhardt *et al.* (2006), Alene *et al.* (2007) and Malenovsky and Burckhardt (2009). Cameroon is no exception in this respect for which only very few contributions exist such as Messi and Nguefang (1993), Messi *et al.* (1998a, b), Tamesse *et al.* (2007), Malenovsky *et al.* (2007) or Tamesse (2005), who recorded 68 psyllid species from Cameroon.

Since 2005, regular surveys on psyllids were conducted in several Regions in Cameroon. Here we report the results from these surveys from the Center Region with respect to the family Psyllidae as defined by Burckhardt (1987), a species rich and probably polyphyletic taxon (Burckhardt, 2005).

MATERIALS AND METHODS

The psyllids were sampled during a period of 24 months (January 2006-December 2007) in different localities of the center region of Cameroon (Table 1). Four sites were chosen for regular monthly inspections: Kala, Minkoameyos, Nkomilong and Soa. Additional localities were visited occasionally.

Adult psyllids were captured with a sweep net of 0.5 mm mesh size and an aspirator. Larvae were sampled directly from buds and leaves of the host plant. All specimens were preserved in 70% ethanol. The damage caused by the psyllids on the host plants was recorded and photographed. Specimens of the host plant were taken for identification by botanists of the University of Yaounde I and the National Herbarium in Yaounde.

At the Laboratory of Zoology of the Higher Teacher's Training College of the University of Yaounde I, where parts of the material is preserved, the insects were examined under a stereomicroscope, sorted to species and provisionally identified using psyllid identification

Table 1: List of localities in Cameroon, center region where psyllids were collected with altitudes and geographical coordinates

| Division | Sub-division | Locality | Altitude (m) | Latitude (N) | Longitude (E) |
|------------------|--------------|--------------------|--------------|--------------|---------------|
| Mefou and Akono | Mbankomo | Nkomilong | 756 | 3°47' | 11°24' |
| | | Kala | 756 | 3°47' | 11°24' |
| | | Eloumden | 756 | 3°51' | 11°31' |
| Mfoundi | Yaounde 7 | Minkoameyos | 759 | 3°51' | 11°31' |
| | | Feme Nord | | | |
| | Yaounde 3 | Campus ENS Yaounde | | | |
| | Yaounde 5 | Ngoulmekong | | | |
| Mefou and Afamba | Soa | Warda | | | |
| | | Soa | 725 | 3°57' | 11°36' |
| Lekié | Okola | Nkol-Ekotsing | 600 | 4°02' | 11°23' |
| | | Leboth | 600 | 4°02' | 11°23' |
| | Obala | Eekom | 560 | 4°10' | 11°32' |
| | Evodoula | Minwoho | 574 | 4°05' | 11°12' |
| Nyong and Kelle | Eseka | Di-Libellingoï | 206 | 3°38' | 10°47' |
| Mbam and Kim | Mbangassina | Bialanguena | 447 | 4°33' | 11°23' |

keys. Representatives of all species were examined at the Naturhistorisches Museum Basel, Switzerland, where detailed taxonomic studies were done. A collection of dry and slide mounted specimens as well as material preserved in 70% ethanol is preserved in this institution.

RESULTS

During the survey 9212 specimens (2685 males, 3074 females and 3453 larvae) of Psyllidae were captured representing 7 subfamilies, 24 genera and 45 species. Host plants of 37 psyllid species could be recorded; those of 8 species remain unknown.

Subfamily Aphalaroidinae Loginova (1964)

Genus *Yangus* Fang (1990)

Yangus sp. 1 (host plant: *Albizia ferruginea*, Fabaceae): Bialanguena: 18 viii 2007, 6 males, 6 females. Kala: 24 i 2006, 6 females; 22 iii 2006, 7 males, 8 females, 6 larvae; 27 iv 2006, 5 males, 2 females; 26 v 2006, 3 males, 5 females; 28 vi 2006, 7 males, 8 females, 1 larva; 28 vii 2006, 7 males, 6 females, 6 larvae; 28 viii 2006, 7 females, 4 larvae; 23 iii 2007, 5 females; 27 iv 2007, 12 males, 12 females, 4 larvae; 25 v 2007, 2 males, 14 females; 27 vi 2007, 3 males, 4 females; 22 ix 2007, 1 male, 1 female. Minkoameyos: 27 v 2007, 4 male, 9 females, 1 larva. Soa: 18 ii 2006, 2 males, 2 females; 12 ii 2007, 1 female; 24 iii 2007, 3 males, 9 females, 1 larva; 23 iv 2007, 10 males, 9 females, 5 larvae; 31 v 2007, 4 males, 1 larva; 26 vi 2007, 1 male, 4 females, 1 larva; 28 xii 2007, 1 male, 2 females.

Yangus sp. 2 (host plant: *Albizia glaberrima*, Fabaceae): Leboth: 28 iii 2006, 4 males, 5 females; 23 x 2006, 7 males, 8 females. Minkoameyos: 18 ii 2007, 6 males, 8 females; 31 iii 2007, 5 males, 8 females; 29 iv 2007, 1 male, 6 females; 24 vii 2006, 6 males, 12 females; 27 viii 2007, 8 males, 9 females; 26 ix 2007, 3 males, 4 females; 31 x 2007, 1 male, 3 females; 25 xi 2007, 3 males, 1 female, 3 larvae. Minwoho: 22 viii 2006, 4 males, 8 females, 13 larvae. Soa: 26 i 2006, 2 males, 8 females, 13 larvae; 18 ii 2006, 2 males, 3 females; 27 iii 2006, 2 males, 3 females, 1 larva; 28 iv 2006, 8 males, 12 females, 19 larvae; 24 v 2006, 2 males, 2 females; 27 vi 2006, 1 male, 4 females; 25 vii 2006, 5 males, 5 females; 30 viii 2006, 4 males, 7 females; 27 ix 2006, 9 males, 6 females; 21 x 2006, 8 males, 1 female; 29 xi 2006, 11 males, 9 females; 28 xii 2006, 2 males, 13 females; 24 i 2007, 5 males, 9 females; 18 ii 2007, 4 males, 8 females; 23 iv 2007, 13 males, 12 females; 31 v 2007, 13 males, 21 females, 1 larva; 26 vi 2007, 3 males, 8 females; 17 vii 2007, 1 male, 2 females, 1 larva; 25 viii 2007, 1 male, 2 females; 23 ix 2007, 2 males, 4 females; 25 x 2007, 2 males, 5 females, 1 larva; 28 xi 2007, 2 males, 4 females; 28 xii 2007, 4 males, 8 females.

Yangus sp. 3 (host plant: *Albizia adianthifolia*, Fabaceae): Di-libellingoï: 8 vii 2007, 1 male, 4 females, 1 larva. Ekekom: 16 ix 2006, 3 females. Minkoameyos: 27 viii 2007, 2 males, 3 females; 26 ix 2007, 2 males, 8 females, 3 larvae; 31 x 2007, 1 male, 2 females, 1 larva; 25 xi 2007, 4 males, 4 females. Soa: 23 iv 2006, 1 male, 9 females, 1 larva; 27 vi 2006, 1 male, 8 females, 3 larvae; 25 vii 2007, 4 males, 13 females; 30 viii 2007, 4 males, 11 females; 21 x 2006, 3 males, 6 females; 29 xi 2006, 2 males, 8 females, 4 larvae; 28 xii 2006, 3 males, 10 females, 1 larva; 24 i 2007, 4 females, 1 larva; 12 ii 2007, 1 male, 1 female; 24 iii 2007, 1 male, 3 females; 23 iv 2007, 1 male, 5 females; 31 v 2007, 9 males, 3 females, 2 larvae; 26 vi 2007, 6 males, 4 females, 1 larva; 17 vii 2007, 19 males, 20 females, 4 larvae; 23 ix 2007, 2 males, 2 females; 28 xi 2007, 4 males, 6 females, 1 larva; 28 xii 2007, 1 larva, 2 males, 4 females.

Yangus sp. 4 (host plant: *Albizia zygia*, Fabaceae): Di-libellingoï: 8 vii 2007, 2 males, 5 females. Ekekom: 16 ix 2006, 1 male, 1 female. Kala: 28 ix 2006, 1 male, 2 females; 19 x 2006,

2 females; 27 xi 2006, 2 males, 8 females; 27 xii 2006, 1 male, 1 female; 25 i 2007, 3 males, 1 female; 20 vii 2007, 1 male; 23 viii 2007, 3 males, 2 females; 22 ix 2007, 3 males, 2 females; 24 x 2007, 1 male, 4 females, 2 larvae; 17 xi 2007, 2 females, 2 larvae. Leboth: 12 x 2007, 1 male, 1 female. Minkoameyos: 26 i 2007, 1 male, 2 females; 27 viii 2007, 1 female; 31 x 2007, 2 males. Nkomilong: 29 i 2007, 1 male, 3 females. Soa: 30 viii 2006, 1 male, 4 females, 2 larvae; 27 ix 2006, 4 females, 2 larvae; 21 x 2006, 2 males, 4 females; 29 xi 2006, 1 male, 3 females; 28 xii 2006, 1 male, 5 females, 2 larvae; 24 i 2007, 12 males, 7 females; 12 ii 2007, 5 males, 4 females, 1 larva; 24 iii 2007, 2 males; 26 vi 2007, 2 males, 3 females; 17 vii 2007, 4 males, 16 females, 1 larva; 25 viii 2007, 4 males, 3 females; 23 ix 2007, 1 male, 1 female, 1 larva; 28 xi 2007, 1 male, 1 larva; 28 xii 2007, 7 males, 12 females, 5 larvae.

Subfamily Ciriacreminae Enderlein (1910)

Genus *Ciriacremum* Enderlein (1910)

Ciriacremum nigeriense Hollis, 1976 (host plant: *Hyloidendron gabunense*, Fabaceae): Di-libellingoï: 8 vii 2007, 3 males, 1 female. Minkoameyos: 27 viii 2007, 4 males, 3 females; 26 ix 2007, 1 male, 9 females; 31 x 2007, 2 males, 2 females, 1 larva; 28 xi 2007, 4 females; 30 xii 2007, 1 male, 1 female. Nkomilong: 29 iii 2007, 1 male, 1 female, 4 larvae; 30 iv 2007, 2 males, 1 female, 1 larva; 26 v 2007, 5 males, 2 females, 24 larvae. Soa: 27 iii 2006, 3 males, 5 larvae.

Ciriacremum nigripes Hollis, 1976 (host plant unknown): Campus ENS (Yaounde): 12 iii 2007, 1 female.

Ciriacremum sp. 1 (host plant: *Hymenostegia afzelii*, Fabaceae): Di-libellingoï: 8 vii 2007, 2 males, 1 female. Kala: 24 ii 2006, 3 males, 3 females, 1 larva; 23 iii 2006, 7 males, 2 females, 1 larva; 27 iv 2006, 3 males, 2 females, 1 larva; 26 v 2006, 2 males, 1 female, 10 larvae; 28 vi 2006, 4 males, 4 females; 28 viii 2006, 2 males, 1 female, 7 larvae; 19 x 2006, 6 females, 1 larva; 27 xi 2006, 5 males, 7 females; 27 xii 2006, 7 males, 6 females; 25 I 2007, 5 males, 5 females; 16 ii 2007, 2 males, 2 females; 23 iii 2007, 6 males, 5 females, 8 larvae; 27 iv 2007, 11 males, 6 females; 25 v 2007, 8 males, 5 females; 27 vi 2007, 1 male, 3 females; 20 vii 2007, 4 males, 1 female; 23 viii 2007, 1 female; 22 ix 2007, 2 males, 1 female; 24 x 2007, 1 male; 17 xi 2007, 4 females; 27 xii 2007, 4 males, 3 females. Nkomilong: 20 i 2006, 3 males, 3 larvae; 25 ii 2006, 3 males, 1 female, 2 larvae; 27 v 2006, 2 males, 2 females, 60 larvae; 29 vii 2006, 5 males, 4 females, 1 larva; 29 ix 2006, 3 males, 2 females, 14 larvae; 24 x 2006, 4 females, 35 larvae; 28 xi 2006, 7 males, 4 females, 5 larvae; 29 xii 2006, 2 males, 3 females; 29 i 2007, 10 males, 4 females, 2 larvae; 19 ii 2007, 6 males, 6 females, 3 larvae; 29 iii 2007, 11 males, 11 females, 41 larvae; 30 iv 2007, 2 males, 3 females; 26 v 2007, 2 males, 1 female; 29 vi 2007, 2 females; 21 vii 2007, 3 males, 3 females, 3 larvae; 22 viii 2007, 1 male, 4 females; 29 ix 2007, 2 males; 27 x 2007, 1 male, 1 female; 24 xi 2007, 2 males, 4 females; 29 xii 2007, 2 males, 2 females, 9 larvae.

Ciriacremum sp. 2 (host plant: *Plagiosiphon emarginatus*, Fabaceae): Di-libellingoï: 8 vii 2007, 2 males, 1 female. Kala: 25 I 2007, 1 male, 1 female; 16 ii 2007, 2 males, 5 females; 23 iii 2007, 1 female; 27 xi 2007, 1 female; 27 xii 2007, 1 female. Nkomilong: 28 xi 2006, 1 male, 1 female; 29 xii 2006, 1 male, 1 female; 19 ii 2007, 4 males, 1 female; 29 vi 2007, 3 males, 1 female; 21 vii 2007, 1 male; 22 viii 2007, 11 males, 16 females, 5 larvae; 29 ix 2007, 2 males, 1 female; 27 x 2007, 7 males, 2 females; 24 xi 2007, 4 males, 1 female; 29 xii 2007, 7 males, 10 females; 29 xii 2007, 1 male.

Ciriacremum sp. 3 (host plant unknown): Nkomilong: 29 xii 2007, 1 male; 24 iii 2007, 1 female. Soa: 28 xii 2006, 1 female.

Ciriacremum sp. 4 (host plant: *Hymenostegia afzelii*, Fabaceae): Kala: 16 ii 2007, 1 female. Nkomilong: 29 iii 2007, 20 males, 24 females, 60 larvae; 26 v 2007, 1 female; 24 xi 2007, 2 males; 29 xii 2007, 3 females.

Ciriacremum sp. 5 (host plant: *Plagiosiphon longitubus*, Fabaceae): Nkomilong: 22 viii 2007, 3 males, 3 females; 29 ix 2007, 2 males, 2 females; 27 x 2007, 14 males, 20 females, 25 larvae; 24 xi 2007, 20 males, 14 females, 9 larvae.

Genus *Kleiniella* Aulmann (1912)

Kleiniella sp. 1 (host plant: *Hymenostegia brachyura*, Fabaceae): Nkomilong: 23 iii 2006, 1 male; 29 iii 2007, 1 female; 21 vii 2007, 1 male; 22 viii 2007, 1 female; 27 x 2007, 1 male, 7 females, 4 larvae; 24 xi 2007, 1 male.

Kleiniella sp. 2 (host plant: *Loesenera talbotii*, Fabaceae): Di-libellingoï: 7 vii 2007, 1 male. Kala: 24 I 2006, 7 larvae; 24 ii 2006, 2 males, 2 females; 23 iii 2006, 3 male, 1 female; 27 iv 2006, 1 male, 1 female; 26 v 2006, 3 males, 2 females; 28 vi 2006, 20 larvae; 28 vii 2006, 3 males, 2 females; 19 x 2006, 1 female, 2 larvae; 27 xi 2006, 2 males, 4 females, 2 larvae; 27 xii 2006, 3 males; 25 i 2007, 11 males, 9 females, 18 larvae; 16 ii 2007, 5 males, 7 females; 23 iii 2007, 2 males, 4 females, 2 larvae; 27 iv 2007, 2 males, 3 females, 2 larvae; 25 v 2007, 2 males, 1 female; 27 vi 2007, 2 males; 20 vii 2007, 3 male; 22 ix 2007, 1 male; 17 xi 2007, 1 male, 1 female; 27 xii 2007, 1 male. Nkomilong: 25 ii 2006, 2 males, 2 females; 24 iii 2006, 2 males, 1 female; 29 iv 2006, 1 male, 1 female; 27 v 2006, 3 males, 2 females; 29 vi 2006, 1 female; 29 vii 2006, 3 females; 29 viii 2006, 1 male, 2 females; 29 ix 2006, 2 males, 5 larvae; 24 x 2006, 4 males, 5 females, 32 larvae; 28 xi 2006, 8 males, 4 females, 14 larvae; 29 xii 2006, 3 males, 2 females; 29 i 2007, 7 males, 7 females, 17 larvae; 19 ii 2007, 2 males, 3 females; 29 iii 2007, 3 males, 3 females; 30 iv 2007, 7 males, 4 females; 26 v 2007, 2 males; 29 vi 2007, 12 male, 16 female; 21 vii 2007, 1 female, 2 larvae; 1 male; 27 x 2007, 1 female; 24 xi 2007, 1 male; 29 xii 2007, 1 male, 2 females, 2 larvae.

Kleiniella sp. 3 (host plant: *Zeukerella citrina*, Fabaceae): Kala: 23 iii 2006, 3 females, 15 larvae; 27 xi 2006, 3 males, 3 females; 27 xii 2006, 2 males; 25 i 2007, 4 males, 1 female, 5 larvae; 16 ii 2007, 2 males, 5 females; 20 vii 2007, 1 female; 24 x 2007, 2 males, 1 female; 27 xii 2007, 6 males, 6 females. Nkomilong: 28 xi 2006, 1 male, 21 larvae; 29 xii 2006, 1 male; 30 iv 2007, 1 male.

Genus *Heteropsylla* Crawford (1914)

Heteropsylla cubana Crawford, 1914 (host plants: *Leucaena* sp., Fabaceae): Minkoameyos: 21 i 2006, 12 males, 10 females, 75 larvae; 22 ii 2006, 10 males, 17 females, 15 larvae; 29 iii 2006, 10 males, 17 females, 32 larvae; 1er v 2006, 17 males, 10 females, 14 larvae; 25 v 2006, 6 males, 7 females, 31 larvae; 26 vi 2006, 6 males, 11 females, 9 larvae; 30 vii 2006, 10 males, 15 females, 46 larvae; 27 viii 2006, 6 males, 6 females, 2 larvae; 30 ix 2006, 34 males, 31 females, 17 larvae; 26 x 2006, 6 males, 2 females, 1 larva; 26 xi 2006, 8 males, 9 females, 25 larvae; 26 xii 2006, 12 males, 17 females, 9 larvae; 26 i 2007, 19 males, 24 females, 16 larvae; 18 ii 2006, 7 males, 6 females, 16 larvae; 31 iii 2007, 26 males, 32 females, 10 larvae; 29 iv 2007, 25 males, 29 females, 24 larvae; 27 v 2007, 11 males, 13 females, 4 larvae; 28 vi 2007, 7 males, 24 females, 18 larvae; 24 vii 2007, 10 males, 16 females, 20 larvae; 27 viii 2007, 20 males, 14 females, 17 larvae; 26 ix 2007, 7 males, 6 females, 7 larvae; 31 x 2007, 5 males, 4 females, 4 larvae; 25 xi 2007, 4 males, 3 females, 9 larvae; 30 xii 2007, 7 males, 14 females, 1 larva. Minwoho: 23 viii 2006, 7 males, 5 females, 12 larvae.

Subfamily Diaphorininae Vondracek (1957)

Genus *Diaphorina* Löw (1879)

Diaphorina sp. (host plant: *Vernonia amygdalina*, Asteraceae): Ngoulmakong: 30 iv 2007, 29 males, 18 females, 153 larvae.

Genus *Epipsylla* Kuwayama (1908)

Epipsylla sp. 1 (host plant: *Margaritaria discoidea*, Euphorbiaceae): Kala: 18 iii 2006, 4 males, 3 females, 1 larva; 27 iv 2006, 1 male, 1 female; 28 vi 2006, 1 male, 1 female; 28 vii 2006, 2 males, 3 females; 28 ix 2006, 1 female; 27 xi 2006, 1 female; 16 ii 2007, 1 female; 23 iii 2007, 3 males, 3 females; 27 iv 2007, 2 males, 4 females; 25 v 2007, 2 males, 2 females; 27 vi 2007, 3 males, 4 females; 20 vii 2007, 3 males, 1 female; 23 viii 2007, 2 males, 3 females; 22 ix 2007, 1 male, 1 female; 24 x 2007, 2 females; 17 xi 2007, 1 male, 1 female, 1 larva; 27 xii 2007, 1 male, 1 female. Soa: 26 i 2006, 1 male, 2 females, 16 larvae; 18 ii 2006, 2 males, 2 females, 3 larvae; 28 iv 2006, 5 females; 27 vi 2006, 4 larvae; 25 vii 2006, 2 females, 1 larva; 30 viii 2006, 2 females; 27 ix 2006, 1 male, 3 females, 1 larva; 21 x 2006, 19 males, 14 females, 5 larvae; 28 xii 2006, 1 male, 2 females; 24 iii 2007, 1 male, 3 females, 17 larvae; 23 iv 2007, 13 males, 6 females; 31 v 2007, 3 males, 2 females; 26 vi 2007, 3 males, 1 female; 17 vii 2007, 2 males, 2 females.

Epipsylla sp. 2 (host plant: *Baphiopsis* sp., Fabaceae): Di-libellingoï: 8 vii 2007, 1 male. Kala: 27 xii 2006, 1 male, 1 female; 25 i 2007, 3 males, 3 females; 16 ii 2007, 1 male, 6 females, 16 larvae; 23 iii 2007, 2 males; 27 iv 2007, 3 males, 1 female; 25 v 2007, 1 male, 1 female; 27 vi 2007, 2 males; 20 vii 2007, 1 female; 23 viii 2007, 1 female; 22 ix 2007, 2 males, 1 larva; 24 x 2007, 1 female; 17 xi 2007, 1 female; 27 xii 2007, 3 males.

Epipsylla sp. 3 (host plant unknown): Kala: 24 iii 2006, 1 female.

Subfamily Euphalerinae Becker-Migdisova (1973)

Genus *Colophorina* Capener (1973)

Colophorina sp. 1 (host plant: *Baphiopsis parvifolia*, Fabaceae): Kala: 16 ii 2007, 4 males, 5 females, 3 larvae; 19 x 2006, 1 male, 1 female; 20 vii 2007, 3 males, 5 females, 1 larva; 22 ix 2007, 1 female; 23 ii 2006, 2 males, 3 females, 5 larvae; 23 iii 2006, 5 males, 6 females, 5 larvae; 23 iii 2007, 5 males, 2 females; 23 viii 2007, 1 male, 1 female; 25 i 2007, 7 males, 7 females, 18 larvae; 25 v 2007, 5 males, 3 females; 27 iv 2006, 1 male, 2 females, 1 larva; 27 iv 2007, 9 males, 15 females, 15 larvae; 27 vi 2007, 3 males, 7 females, 2 larvae; 27 xi 2006, 7 females, 5 larvae; 27 xii 2006, 2 males, 5 females, 12 larvae; 28 ix 2006, 2 females, 6 larvae; 28 vi 2006, 4 males, 5 females, 2 larvae. Nkomilong: 19 ii 2007, 2 males, 3 females, 15 larvae; 24 iii 2006, 3 males, 4 females; 24 xi 2007, 1 male; 25 ii 2006, 3 males, 3 females, 6 larvae; 26 v 2006, 2 males, 12 females, 4 larvae; 29 i 2007, 10 males, 10 females, 7 larvae; 29 ix 2006, 1 male, 4 larvae; 29 vii 2006, 2 males, 3 females, 1 larva; 29 xii 2007, 1 male, 2 females, 1 larva. Soa: 12 ii 2007, 2 males, 9 females, 14 larvae.

Colophorina sp. 2 (host plant unknown): Kala: 16 ii 2007, 1 male, 2 larvae.

Genus cf. *Euryconus* Aulmann (1912)

Euryconus sp. (host plant: *Dialium* sp., Fabaceae): Kala: 27 iv 2006, 8 males, 14 females; 26 v 2006, 1 male, 1 female, 2 larvae; 28 vi 2006, 2 males, 10 females; 28 vii 2006, 19 males, 38 females, 15 larvae; 28 viii 2006, 15 males, 25 females; 28 ix 2006, 7 males, 9 females; 19 x 2006, 4 males, 4 females, 1 larva; 27 xi 2006, 3 males, 2 females, 12 larvae; 27 xii 2006, 6 males, 4 females, 2 larvae; 25 i 2007, 9 males, 13 females; 16 ii 2007, 8 males, 9 females, 2 larvae; 23 iii 2007, 10 males, 7 females; 27 iv 2007, 2 males, 6 females; 25 v 2007, 3 males, 2 females; 27 vi 2007, 1 female. Nkomilong: 22 iii 2006, 6 females, 5 larvae; 27 v 2006, 1 female; 29 xii 2006, 8 males, 9 females; 29 i 2007, 24 males, 21 females, 1 larva; 19 ii 2007, 9 males, 10 females; 29 iii 2007, 2 males, 1 female, 1 larva; 30 iv 2007, 5 males, 2 females; 26 v 2007, 1 male, 1 female; 29 vi 2007, 4 males; 21 vii 2007, 2 males; 22 viii 2007, 3 males, 4 females; 29 ix 2007, 1 male, 1 female; 27 x 2007, 2 males, 1 female; 24 xi 2007, 1 male; 29 xii 2007, 2 males, 1 female.

Gen. sp. 1 (host plant: *Millettia laurentii*, Fabaceae): Di-libellingoï: 8 vii 2007, 6 males, 10 larvae. Kala: 22 iii 2006, 3 males, 8 females, 1 larva; 27 iv 2006, 2 females; 19 x 2006, 1 male, 8 females, 12 larvae; 25 I 2007, 9 females, 2 larvae; 16 ii 2007, 2 males, 6 females, 31 larvae; 27 iv 2007, 9 males, 1 female, 9 larvae; 25 v 2007, 9 males, 6 females, 75 larvae; 27 vi 2007, 3 males, 4 females; 20 vii 2007, 3 females. Minkoameyos: 27 viii 2007, 1 male, 1 female, 3 larvae. Minwoho: 28 viii 2006, 2 males, 7 females, 1 larva. Nkomilong: 19 ii 2007, 9 males, 5 females, 13 larvae; 29 iii 2007, 4 males, 5 females, 4 larvae; 30 iv 2007, 1 male, 2 females, 30 larvae; 21 vii 2007, 4 males, 4 females; 22 viii 2007, 1 male, 1 larva. Soa: 26 i 2006, 9 males, 6 female, 33 larvae; 18 ii 2006, 6 males, 3 females, 32 larvae; 27 iii 2006, 2 males, 10 females; 28 iv 2006, 14 males, 10 females, 127 larvae; 24 v 2006, 6 males, 6 females, 11 larvae; 27 vi 2006, 2 males, 2 females, 7 larvae; 25 vii 2006, 5 males, 2 females, 13 larvae; 30 viii 2006, 9 males, 4 females, 12 larvae; 27 ix 2006, 10 males, 12 females, 1 larva; 21 x 2006, 8 males, 5 females, 25 larvae; 29 xi 2006, 2 males, 2 females, 32 larvae; 28 xii 2006, 5 males, 10 females, 15 larvae; 24 i 2007, 3 males, 1 female; 12 ii 2007, 15 males, 14 females, 2 larvae; 24 iii 2007, 9 males, 2 females; 29 iv 2007, 9 males, 5 females, 21 larvae; 31 v 2007, 11 males, 12 females, 6 larvae; 26 vi 2007, 2 males, 2 females; 17 vii 2007, 3 males, 7 females, 7 larvae; 25 viii 2007, 3 males, 3 females, 16 larvae; 25 x 2007, 4 males, 1 larva; 28 xi 2007, 2 males, 9 larvae; 28 xii 2007, 4 males, 2 females, 7 larvae.

Gen. sp. 2 (host plant: *Detarium macrocarpum*, Fabaceae): Kala: 27 xii 2006, 2 males, 2 females; 25 i 2007, 2 males, 1 female; 16 ii 2007, 6 males, 4 females, 6 larvae; 23 iii 2007, 5 males, 1 female; 27 iv 2007, 5 males, 5 females; 25 v 2007, 5 males; 20 vii 2007, 2 males, 4 females; 23 viii 2007, 4 males, 1 female, 1 larva; 22 ix 2007, 5 males, 2 females; 24 x 2007, 1 male; 17 xi 2007, 1 female; 27 xii 2007, 1 female. Soa: 28 iv 2006, 1 female; 12 ii 2007, 1 male, 1 larva; 23 iv 2007, 3 males, 1 female; 17 vii 2007, 1 female.

Gen. sp. 3 (host plant: *Millettia sp.*, Fabaceae): Eloumden: 21 ii 2006, 3 males, 5 females, 8 larvae. Kala: 27 iv 2007, 1 male. Nkomilong: 27 v 2006, 2 males, 3 females, 2 larvae; 29 i 2007, 1 male, 1 female, 9 larvae; 19 ii 2007, 2 males, 3 females; 29 iii 2007, 2 males, 1 female; 30 iv 2007, 4 males, 2 females; 26 v 2007, 1 female; 29 vi 2007, 1 female; 22 viii 2007, 1 female; 29 xii 2007, 1 male, 1 larva.

Gen. sp. 4 (host plant: *Jollydora duparquetiana*, Connaraceae): Kala: 27 xi 2006, 1 male, 2 larvae.

Gen. sp. 5 (host plant unknown): Kala: 27 iv 2006, 5 males, 9 females, 24 larvae.

Subfamily Paurocephalinae Vondracek (1963)

Genus *Diclidophlebia* Crawford (1920)

Diclidophlebia eastopi Vondráček, 1963 (host plant: *Triplochiton scleroxylon*, Sterculiaceae): Eloumden: 21 ii 2006, 6 males, 2 females; Feme-Nord: 14 vii 2007, 1 male, 4 females. Kala: 16 ii 2006, 1 male, 2 females, 9 larvae; 22 iii 2006, 1 male, 1 female, 4 larvae; 27 iv 2006, 1 male, 2 females, 4 larvae; 26 v 2006, 2 males, 2 males, 1 larva; 28 viii 2006, 2 males, 5 females; 28 ix 2006, 2 females; 19 x 2006, 2 females; 27 xi 2006, 2 males, 3 females, 3 larvae; 27 xii 2006, 1 male, 5 females, 9 larvae; 25 i 2007, 3 males, 3 females, 1 larva; 23 iii 2007, 2 males, 3 females, 2 larvae; 27 iv 2007, 2 males, 6 females; 25 v 2007, 1 male; 27 vi 2007, 1 male, 2 females; 20 vii 2007, 2 females, 1 larva; 23 viii 2007, 2 males, 2 females; 24 x 2007, 1 female, 10 larvae; 17 xi 2007, 1 female. Leboth: 23 x 2006, 3 males, 1 female. Minkoameyos: 31 iii 2007, 2 males, 1 female, 1 larva; 28 vi 2007, 2 males, 5 females; 24 vii 2007, 1 male, 4 females; 27 viii 2007, 2 males, 5 females; 26 ix 2007, 1 female. Nkol-Ekotsing: 18 vii 2006, 6 males, 20 females, 1 larva. Nkomilong: 29 xii 2007, 1 male, 1 female.

Diclidophlebia harrisoni Osisanya, 1969 (host plant: *Triplochiton scleroxylon*, Sterculiaceae): Kala: 22 iii 2006, 1 female; 27 iv 2006, 1 male, 1 female; 25 i 2007, 2 males, 4 females; 16 ii 2007, 1 female; 23 iii 2007, 4 males. Minkoameyos: 28 vi 2007, 1 male. Nkol-Ekotsing: 18 vii 2006, 1 male, 3 females.

Diclidophlebia irvingiae Burckhardt *et al.* 2006 (host plants: *Desbordesia glaucescens*, *Irvingia gabonensis*, Simaroubaceae): Nkomilong: 29 xii 2006, 1 male.

Diclidophlebia leptonychia Burckhardt *et al.* 2006 (host plants: *Leptonychia macrantha*, perhaps also *Nesogordonia papaverifera*, Sterculiaceae): Kala: 23 iii 2007, 1 male; 27 iv 2007, 2 males, 3 females, 1 larva; 27 vi 2007, 1 female; 20 vii 2007, 3 males, 2 females. Minkoameyos: 18 ii 2007, 6 males, 4 females; 31 iii 2007, 2 males, 1 female.

Diclidophlebia xuani Messi, 1998 (host plant: *Ricinodendron heudelotii*, Euphorbiaceae): Di-libellingoï: 7 vii 2007, 5 males, 6 females, 3 larvae. Eloumden: 21 ii 2006, 3 males, 4 females, 1 larva. Kala: 24 i 2006, 3 males, 4 females, 4 larvae; 22 iii 2006, 5 males, 5 females, 9 larvae; 27 iv 2006, 6 males, 6 females, 9 larvae; 28 viii 2006, 1 male, 5 females; 27 xi 2006, 10 males, 5 females, 4 larvae; 27 xii 2006, 2 males, 3 females, 4 larvae; 25 i 2007, 5 males, 2 females; 16 ii 2007, 15 males, 12 females, 6 larvae; 23 iii 2007, 14 males, 13 females, 27 larvae; 27 iv 2007, 1 male, 4 females; 25 v 2007, 1 male; 27 vi 2007, 3 males, 6 larvae; 20 vii 2007, 3 males, 4 females, 4 larvae; 22 ix 2007, 2 females. Leboth: 23 x 2006, 3 males, 1 female, 8 larvae. Minkoameyos: 29 iii 2006, 5 males, 5 females; 1 v 2006, 6 males, 2 females, 8 larvae; 25 v 2006, 7 males, 5 females, 8 larvae; 26 vi 2006, 11 males, 10 females, 7 larvae; 30 vii 2006, 1 male, 2 females; 27 viii 2006, 2 males, 8 females, 10 larvae. Minwoho: 22 viii 2006, 10 males, 9 females, 26 larvae. Nkol-Ekotsing: 18 vii 2006, 1 male, 2 females. Nkomilong: 29 iii 2007, 2 males, 4 larvae; 26 v 2007, 4 males, 1 female; 29 vi 2007, 2 females. Soa: 28 iv 2006, 8 males, 10 females, 7 larvae; 24 v 2006, 2 males, 3 females; 27 ix 2006, 3 males, 4 females, 3 larvae; 21 x 2006, 2 males, 4 females; 17 vii 2007, 6 males, 4 females, 3 larvae; 25 viii 2007, 1 male, 1 female; 23 ix 2007, 1 male, 1 female; 25 x 2007, 1 male, 2 females; 28 xi 2007, 1 male.

Diclidophlebia sp. 1 (host plant unknown): Bialanguena: 18 viii 2007, 3 males, 1 female. Di-libellingoï: 7 vii 2007, 1 male, 2 females. Soa: 17 vii 2007, 4 males, 2 females; 25 viii 2007, 1 male; 23 ix 2007, 2 males; 25 x 2007, 1 female; 28 xi 2007, 1 male; 28 xii 2007, 1 male.

Genus *Paurocephala* Crawford (1914)

Paurocephala sp. 1 (host plant: *Agelaea hirsuta*, Connaraceae): Kala: 27 iv 2006, 3 males; 28 vii 2006, 5 males, 6 females, 5 larvae; 28 viii 2006, 3 males, 3 females, 33 larvae; 27 xi 2006, 2 males, 5 females; 27 xii 2006, 10 males, 8 females; 27 iv 2007, 10 males, 5 females, 8 larvae; 25 v 2007, 9 males, 3 females, 10 larvae; 20 vii 2007, 5 males, 5 females, 1 larva; 23 viii 2007, 1 female; 22 ix 2007, 1 female, 10 larvae; 24 x 2007, 9 males, 12 females, 9 larvae; 17 xi 2007, 4 males, 3 females, 2 larvae; 27 xii 2007, 2 males, 1 female. Nkomilong: 23 i 2006, 3 males, 5 females; 25 ii 2006, 3 males, 5 females, 93 larvae; 24 iii 2006, 7 males, 3 females, 1 larva; 27 v 2006, 17 males, 6 females, 3 larvae; 29 vi 2006, 4 males, 3 females, 8 larvae; 29 ix 2006, 7 males, 14 females, 13 larvae; 24 x 2006, 3 males, 6 females, 1 larva; 28 xi 2006, 5 males, 6 females; 29 xii 2006, 3 males, 1 female, 1 larva; 29 i 2007, 7 males, 7 females; 19 ii 2007, 5 males, 7 females; 29 iii 2007, 3 males, 1 female; 30 iv 2007, 2 males, 1 female, 20 larvae; 26 v 2007, 2 males, 2 females; 29 vi 2007, 3 males, 2 females, 2 larvae; 22 viii 2007, 8 males, 5 females, 6 larvae; 29 ix 2007, 3 males, 2 females; 27 x 2007, 1 male, 4 females; 24 xi 2007, 1 male; 29 xii 2007, 1 male.

Paurocephala sp. 2 (host plant: *Cnestis ferruginea*, Connaraceae): Di-libellingoï: 8 vii 2007, 3 males, 5 females, 43 larvae. Ekekom: 16 ix 2006, 4 females, 4 larvae. Feme-Nord: 14 vii

2007, 6 males, 14 females, 2 larvae. Kala: 28 vii 2006, 16 males, 20 females, 2 larvae; 27 iv 2007, 2 males, 4 females. Leboth (Okola): 23 x 2006, 11 males, 19 females, 55 larvae; 12 x 2007, 4 males, 2 females, 1 larva. Minkoameyos: 18 ii 2007, 7 males, 9 females, 19 larvae; 31 iii 2007, 2 males, 5 females; 29 iv 2007, 14 males, 8 females, 20 larvae; 24 vii 2007, 5 males; 27 viii 2007, 1 female. Minwoho (Evodoula): 22 viii 2006, 5 males, 4 females, 5 larvae. Soa: 26 i 2006, 15 males, 5 females, 57 larvae; 18 ii 2006, 2 males, 3 females, 2 larvae; 27 iii 2006, 17 males, 9 females, 6 larvae; 28 iv 2006, 5 males, 1 female; 25 v 2006, 1 male, 1 female, 1 larva; 27 vi 2006, 3 males, 7 females, 1 larva; 25 vii 2006, 1 male; 30 viii 2006, 6 males, 10 females; 27 ix 2006, 5 males, 8 females, 11 larvae; 21 x 2006, 3 males, 3 females, 16 larvae; 29 xi 2006, 8 males, 15 females, 68 larvae; 28 xii 2006, 3 males, 3 females; 24 i 2007, 10 males, 15 females, 8 larvae; 12 ii 2007, 10 males, 5 females, 2 larvae; 24 iii 2007, 8 males, 11 females; 23 iv 2007, 13 males, 15 females; 31 v 2007, 3 males, 7 females, 3 larvae; 26 vi 2007, 7 males; 17 vii 2007, 8 males, 7 females; 25 viii 2007, 8 males, 4 females, 1 larva; 23 ix 2007, 3 males, 6 females, 4 larvae; 25 x 2007, 4 males, 5 females, 6 larvae; 28 xi 2007, 8 males, 11 females; 28 xii 2007, 3 males, 5 females, 2 larvae.

Genus *Syntomoza* Enderlein (1921)

Syntomoza sp. 1 (host plant: *Homalium letestii*, Flacourtiaceae): Kala: 24 i 2006, 2 males, 1 female, 4 larvae; 24 ii 2006, 33 larvae; 28 vi 2006, 1 female, 1 larva; 16 ii 2007, 7 males, 14 females, 55 larvae; 23 iii 2007, 1 male, 3 females, 9 larvae. Nkomilong: 27 v 2006, 4 females, 8 larvae; 29 viii 2006, 9 males, 6 females, 35 larvae; 29 ix 2006, 2 males, 1 female, 1 larva.

Subfamily Psyllinae Löw/Arytaininae Crawford (1879)

Genus *Cacopsylla* Ossiannilsson (1970)

Cacopsylla sp. (host plant unknown): Nkomilong: 28 xi 2006, 2 females.

Genus *Palaeolindbergiella* Heslop-Harrison (1961)

Palaeolindbergiella sp. 1 (host plant: *Dalbergia* sp., Fabaceae): Ekekom (Obala): 16 ix 2006, 15 males, 14 females, 32 larvae. Kala: 20 vii 2007, 1 male, 1 female. Minkoameyos: 27 viii 2007, 4 males, 2 females; 25 xi 2007, 3 males; 30 xii 2007, 1 male. Nkomilong: 20 i 2006, 32 larvae; 25 ii 2006, 9 males, 6 females; 24 iii 2006, 3 males, 1 female, 6 larvae; 29 iv 2006, 2 males, 4 females; 27 v 2006, 11 males, 4 females, 8 larvae; 29 vi 2006, 7 males, 3 females, 1 larva; 29 vii 2006, 7 males, 7 females, 2 larvae; 29 viii 2006, 3 males, 2 females, 3 larvae; 29 ix 2006, 1 female; 24 x 2006, 2 males, 2 females; 28 xi 2006, 7 males, 5 females, 1 larva; 29 i 2007, 12 males, 13 females, 11 larvae; 19 ii 2007, 2 males, 2 females; 29 iii 2007, 2 males, 3 females, 1 larva; 30 iv 2007, 3 males, 2 females; 26 v 2007, 1 female; 29 vi 2007, 3 males, 3 females; 21 vii 2007, 6 males, 9 larvae; 22 viii 2007, 1 male, 1 female, 4 larvae; 29 ix 2007, 1 male, 1 female; 27 x 2007, 1 female, 3 larvae; 24 xi 2007, 3 larvae; 29 xii 2007, 1 male, 1 female; 29 xii 2006, 12 males, 8 females. Soa: 26 vi 2007, 1 male, 1 female, 7 larvae.

Palaeolindbergiella sp. 2 (host plant: *Dalbergia* sp., Fabaceae): Kala: 27 xii 2006, 1 female. Nkomilong: 25 ii 2006, 1 male, 1 female, 7 larvae; 24 iii 2006, 2 larvae; 29 iv 2006, 2 males, 11 larvae; 29 vi 2006, 2 males, 1 female, 4 larvae; 29 vii 2006, 5 males, 5 females, 4 larvae; 29 viii 2006, 4 males, 3 females, 3 larvae; 29 ix 2006, 1 male, 1 male, 2 larvae; 24 x 2006, 7 larvae; 28 xi 2006, 5 males, 4 females, 7 larvae; 29 xii 2006, 5 males, 3 females, 6 larvae; 29 i 2007, 2 males, 1 female, 2 larvae; 30 iv 2007, 4 males, 1 female; 26 v 2007, 5 males, 1 female; 29 vi 2007, 3 females, 5 larvae; 21 vii 2007, 2 males, 4 females, 6 larvae; 22 viii 2007, 3 males, 3 females; 29 ix 2007, 1 male, 1 female; 27 x 2007, 1 male, 4 females, 2 larvae; 24 xi 2007, 2 males, 1 female; 29 xii 2007, 3 males, 2 females, 1 larva. Soa: 24 v 2006, 3 males, 27 larvae; 25 vii 2006, 1 female.

Psylla sp. cf. *winkleri* Rübsaamen (host plant unknown): Minkoameyos: 27 viii 2007, 1 female.

Gen. sp. 1 (host plant: *Anthonotha macrophylla*, Fabaceae): Ekekom (Obala): 16 ix 2006, 6 males, 4 females, 24 larvae. Kala: 23 ii 2006, 1 male, 3 females, 11 larvae; 16 ii 2007, 2 females; 23 iii 2007, 3 males, 2 females, 7 larvae; 27 iv 2007, 3 males, 4 females; 25 v 2007, 1 male; 27 vi 2007, 1 male; 20 vii 2007, 6 males, 8 females, 2 larvae; 23 viii 2007, 1 female; 17 xi 2007, 1 male, 1 female; 27 xii 2007, 1 female. Nkomilong: 20 i 2006, 3 males, 2 females, 27 larvae; 29 iv 2006, 9 males, 3 females, 4 larvae; 27 v 2006, 1 male, 1 female, 1 larva; 29 vii 2006, 1 male, 1 female; 29 viii 2006, 7 males, 5 females, 15 larvae; 29 ix 2006, 3 males, 2 females, 3 larvae; 29 i 2007, 1 male, 1 female, 1 larva; 19 ii 2007, 3 males, 9 larvae; 30 iv 2007, 4 males, 3 females, 2 larvae; 26 v 2007, 1 male, 2 females; 29 vi 2007, 1 male, 1 female, 21 larvae; 21 vii 2007, 1 male; 22 viii 2007, 3 males, 2 females.

Gen. sp. 2 (host plant: *Prunus africana*, Rosaceae): Minkoameyos: 21 i 2006, 1 male, 5 females; 22 ii 2006, 1 male, 4 females, 1 larva; 29 iii 2006, 3 males, 12 females, 10 larvae; 1 v 2006, 5 males, 11 females; 25 v 2006, 1 male, 7 females, 9 larvae; 26 vi 2006, 1 male, 4 females; 30 vii 2006, 2 males, 15 females, 9 larvae; 27 viii 2006, 2 females, 3 larvae; 30 ix 2006, 2 males, 8 larvae; 26 x 2006, 2 males, 2 females, 2 larvae; 26 xi 2006, 7 males, 7 females, 14 larvae; 26 xii 2006, 5 males, 8 females, 2 larvae; 21 i 2007, 5 males, 10 females, 3 larvae; 18 ii 2007, 1 male; 24 vii 2007, 1 female; 27 viii 2007, 2 males, 3 females, 1 larva; 26 ix 2007, 1 female; 31 x 2007, 1 male, 7 females; 25 xi 2007, 3 males, 3 females, 2 larvae; 30 xii 2007, 10 males, 17 females, 9 larvae.

Gen. sp. 3 (*Albizia glaberrima*, Fabaceae): Minkoameyos: 18 ii 2007, 1 female. Soa: 31 v 2007, 1 female; 25 viii 2007, 1 male, 1 female; 23 ix 2007, 1 male; 25 x 2007, 1 male; 28 xi 2007, 1 male, 2 females; 28 xii 2007, 1 male, 2 females.

Gen. sp. 4 (host plant: *Dalbergia* sp., Fabaceae): Minkoameyos: 25 xi 2007, 3 males, 5 females; 30 xii 2007, 26 males, 11 females, 4 larvae.

Subfamily Spondyliaspidae, Heslop-Harrison (1954)

Genus *Blastopsylla* Taylor (1985)

Blastopsylla occidentalis Taylor (host plant: *Eucalyptus* sp., Myrtaceae): Kala: 25 i 2007, 1 female. Warda (Yaounde): 1 ix 2007, 30 males, 15 females, 24 larvae; 28 xii 2007, 14 males, 19 females.

DISCUSSION

Faunistics

In the Center Region of Cameroon 45 species of Psyllidae were recorded during a survey from January 2006 to December 2007. They belong to the following 7 subfamilies: Aphalaroidinae (1 genus, 4 species), Ciriacreminae (3 genera, 11 species), Diaphorininae (2 genera, 4 species), Euphalerinae (7 genera, 8 species), Paurocephalinae (3 genera, 9 species), Psyllinae/Arytaininae (7 genera, 8 species) and Spondyliaspidae (1 genus, 1 species). Tamesse (2005) listed 26 species of Psyllidae from the entire territory of Cameroon known up to 2005. Among the 45 species collected during the present survey, 36 remain unnamed and 27 are reported for the first time from the Center Region.

Two species are exotic which recently have been introduced into Cameroon: *Blastopsylla occidentalis* associated with eucalypts and *Heteropsylla cubana* which develops on *Leucaena* sp. Both are pests on their hosts and have been reported also from elsewhere in Africa.

Eleven species were common being collected at least thirty times: *Kleiniella* sp. 2 (45 times), *Ciriacremum* sp. 1 (42 times), Euphalerinae gen. sp. 1 (40 times), *Diclidophlebia xuani* (37 times), *Paurocephala* sp. 2 (35 times), *Yangus* sp. 2 (34 times), *Paurocephala* sp. 1 (33 times), *Epipsylla* sp. 1 (31 times), *Yangus* sp. 4 (31 times), *Colophorina* sp. 1 (30 times) and *Palaeolinbergiella* sp. 1 (30 times). Nine species were collected only once: *Ciriacremum nigripes*, *Colophorina* sp. 2, *Psylla* cf. *winkleri*, *Epipsylla* sp. 3, *Diclidophlebia irvingiae*, *Diaphorina* sp. 1, Euphalerinae gen. sp. 4 and Euphalerinae gen. sp. 5.

Phenology

From January 2006 to December 2007, *Palaeolinbergiella* sp. 1 was collected 24 times at Nkomilong (Fig. 1). Most of the time all developmental stages were observed on its host plant, *Dalbergia* sp. The highest number of individuals was noted from January to February 2006. The host plant phenology explains this proliferation because after the rainy season, this plant renews its leaves.

From January 2006 to December 2007, *Paurocephala* sp. 2 was collected 24 times at Soa (Fig. 2). Most of the time all development stages were observed on its host plant, *Cnestis ferruginae*. The highest number of individuals was noted from October to December 2006. The host plant phenology explains this proliferation because during the rainy season the host renews their leaves.

From January 2006 to December 2007, *Euryconus* sp. 1 was collected 15 times at Kala (Fig. 3) and 15 times at Nkomilong (Fig. 4). Most of the time all developmental stages were observed on its host at Kala but at Nkomilong the larvae were collected only in March. The highest number of individuals was noted from June to September 2006 at Kala and from December 2006 to March 2007 at Nkomilong. The two localities have the same climatic conditions, suggesting that the difference of proliferation in the two localities is due to the phenology of plants.

From January 2006 to December 2007, *Ciriacremum* sp. 1 was collected 21 times at Kala (Fig. 5) and 20 times at Nkomilong (Fig. 6). Most of the time all developmental stages were observed on the host in both localities. The highest number of individuals was noted during the rainy seasons and showed the same periods of proliferation in the two localities. At Nkomilong larval stages predominated, compared with adults.

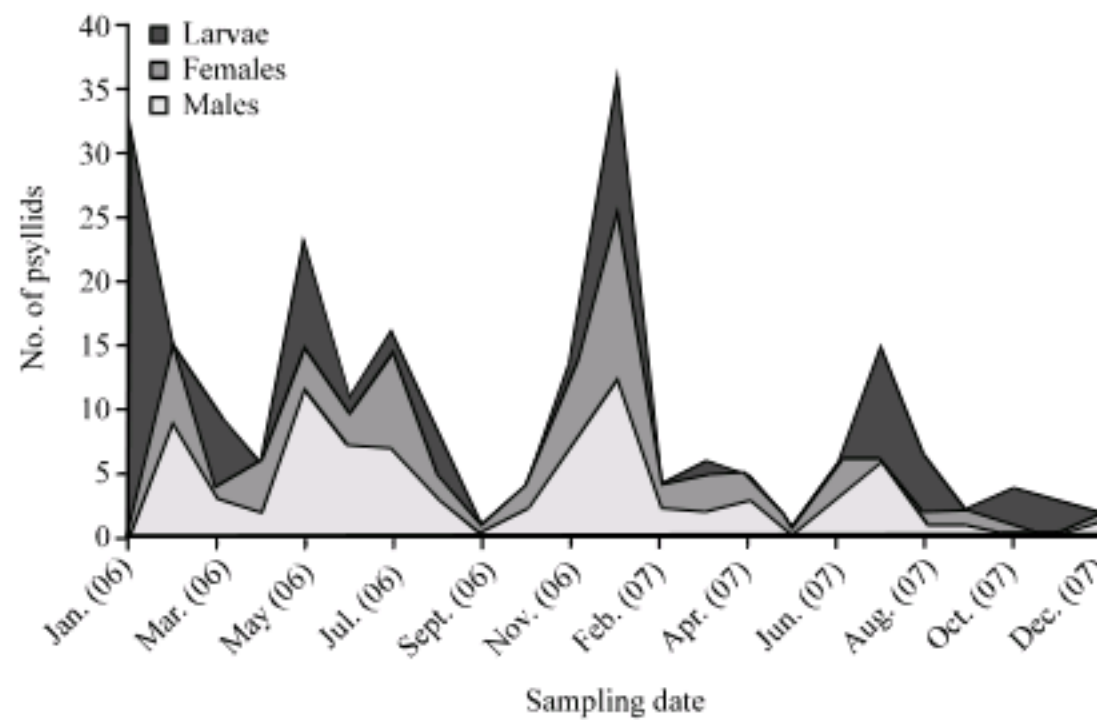


Fig. 1: Numbers of larvae, males and females of *Palaeolinbergiella* sp. 1 collected at Nkomilong on *Dalbergia* sp.

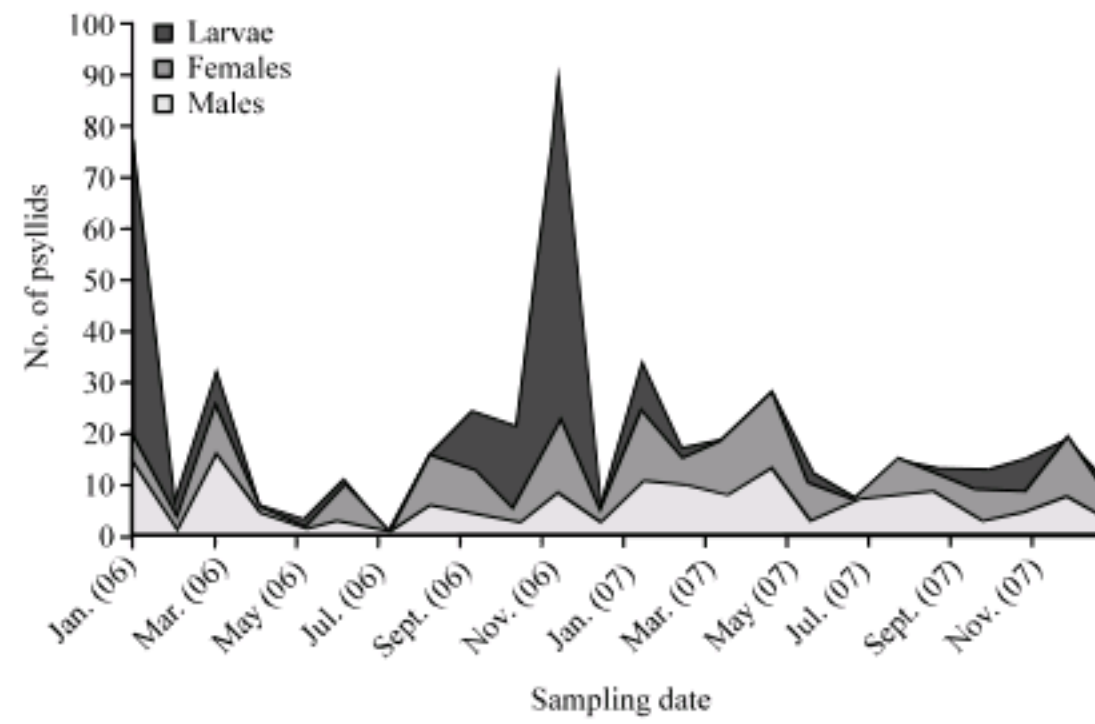


Fig. 2: Numbers of larvae, males and females of *Paurocephala* sp. 2 collected at Soa on *Cnectis ferruginae*

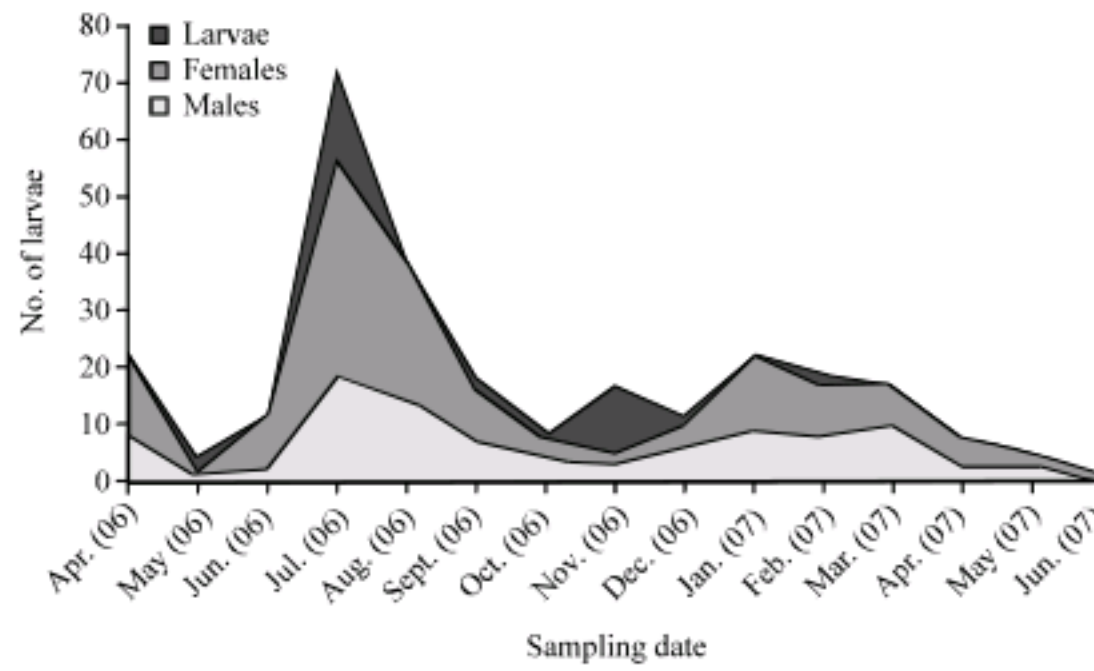


Fig. 3: Numbers of larvae, males and females of *Euryconus* sp. 1 collected at Kala on *Dialium* sp.

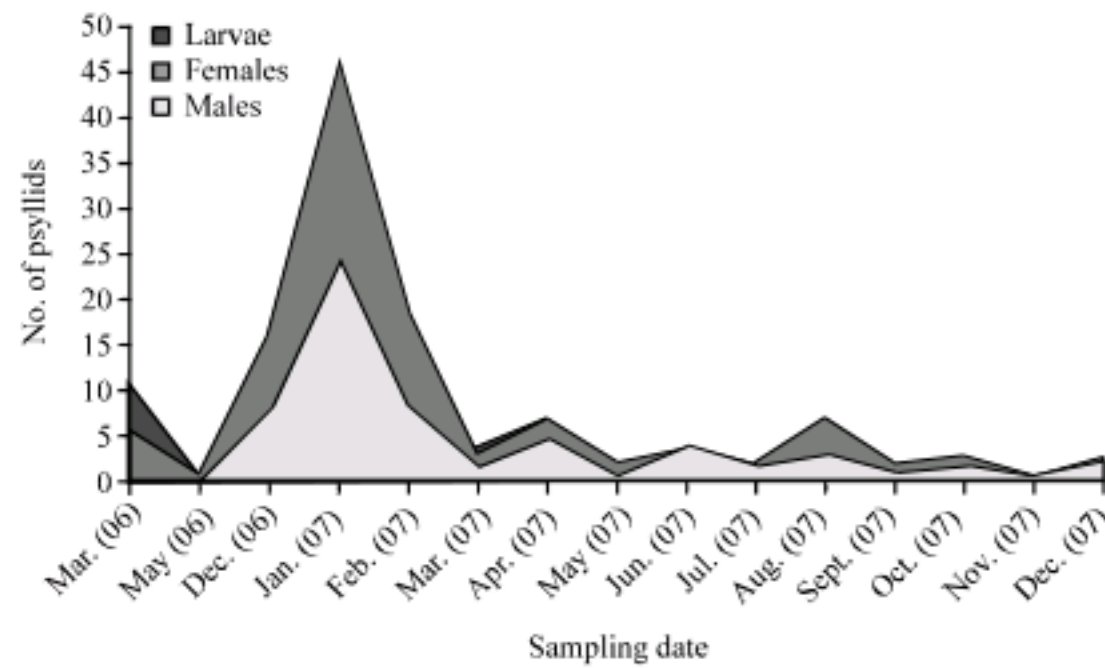


Fig. 4: Numbers of larvae, males and females of *Euryconus* sp. 1 collected at Nkomilong on *Dialium* sp.

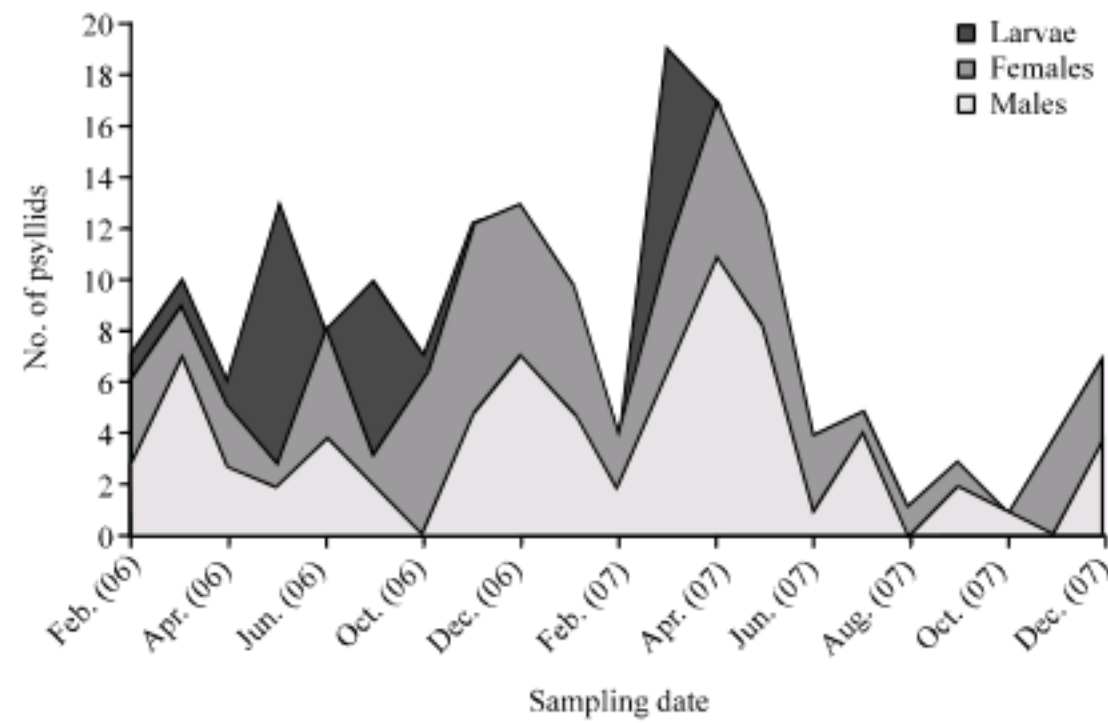


Fig. 5: Numbers of larvae, males and females of *Ciriacremum* sp. 1 collected at Kala on *Hymenostegia afzelii*

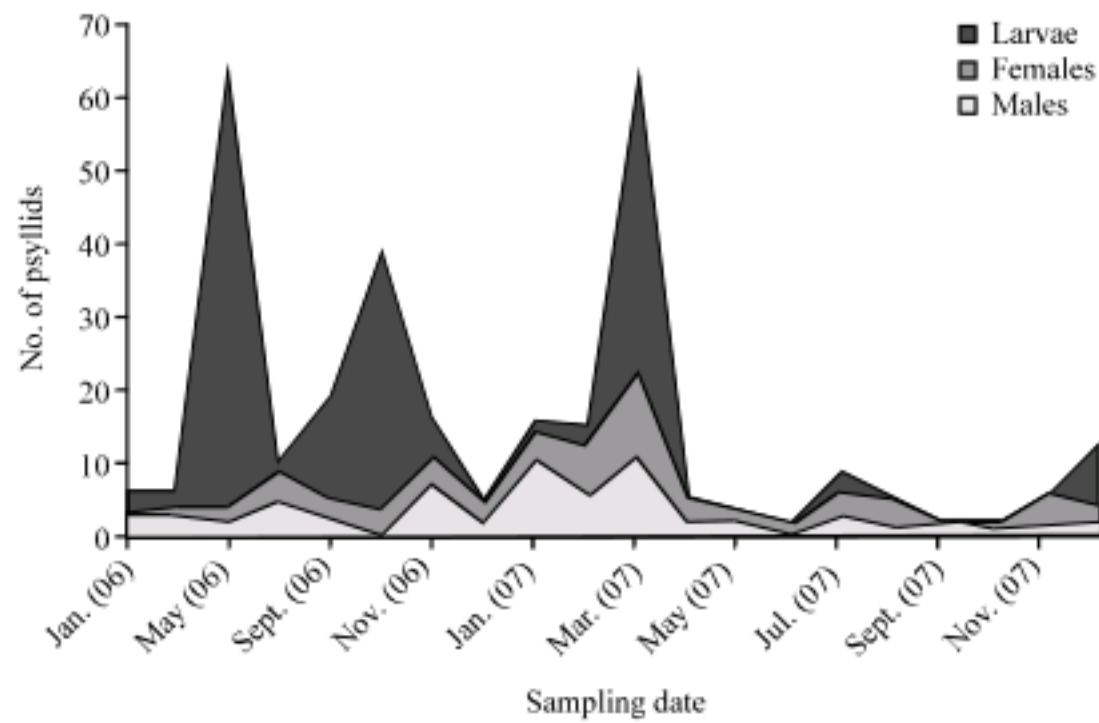


Fig. 6: Numbers of larvae, males and females of *Ciriacremum* sp. 1 collected at Nkomilong on *Hymenostegia afzelii*

From January 2006 to December 2007, *Kleiniella* sp. 2 was collected 20 times at Kala (Fig. 7) and 21 times at Nkomilong (Fig. 8). Most of time all developmental stages were present on the host in both localities. At Kala two peaks of proliferation were observed at May 2006 and January 2007, respectively; At Nkomilong three peaks of proliferation were observed, i.e., in October 2006, January and June 2007. As the two localities are ruled by the same climatic conditions, difference of proliferation period may be the result of differences in the host phenology.

Host Plants

Host plants are known for 37 of the 45 species reported from the Center Region (Table 2). The host record of *Euphalerinae* genus sp. 4 (Connaraceae: Jollydora) is questionable as members of the Euphalerinae are generally associated with Fabaceae. Most

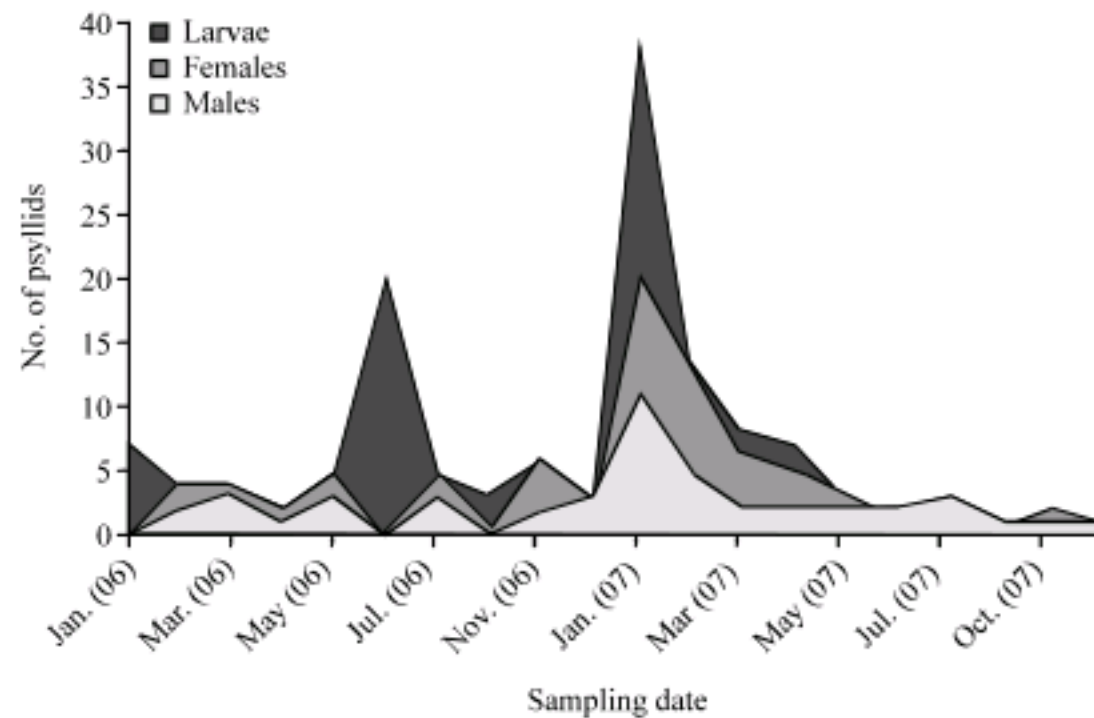


Fig. 7: Numbers of larvae, males and females of *Kleiniella* sp. 2 collected at Kala on *Loesenera talbotii*

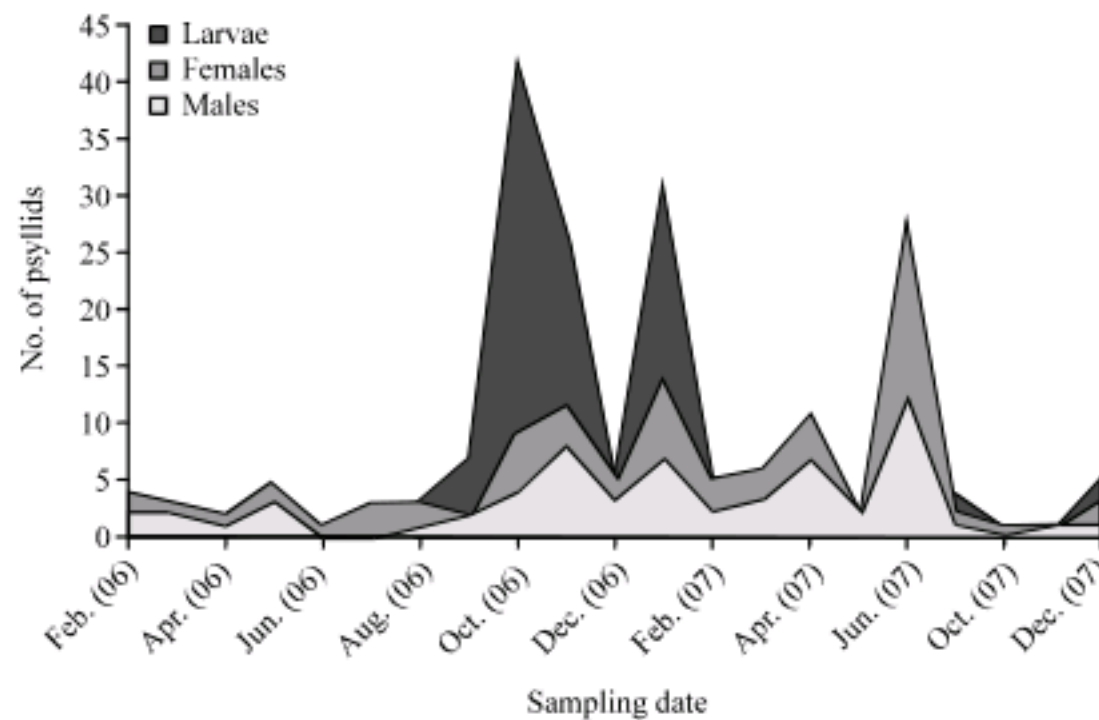


Fig. 8: Numbers of larvae, males and females of *Kleiniella* sp. 2 collected at Nkomilong on *Loesenera talbotii*

of the species discussed here are monophagous on their respective hosts. Exceptions are *Diclidophlebia irvingia* which is associated with *Desbordesia* and *Irvingia*, as well as *Blastopsylla occidentalis* and *Heteropsylla cubana* which are narrowly oligophagous on *Eucalyptus* sp. and *Leucaena* sp., respectively. Incidentally the last two species are widely distributed, exotic pests.

The Fabaceae includes 12 species of host plants; their psyllids belong to the genera *Ciriactremum*, *Kleiniella*, *Epipsylla*, *Euryconus*, one unknown genus sp. 2 of Euphalerinae and one unknown genus sp. 1 of Psyllinae/Arytaininae subfamily. Within this family, *Hymenostegia afzelii* hosted two different species of *Ciriactremum* genus. The family of Mimosaceae includes five species of host plants, of which four belong to the *Albizia* genus; their psyllids belong to the following genera: *Yangus*, *Heteropsylla* and gen. sp. 3 (Psyllinae/Arytaininae). *Albizia glaberrima* hosted two different species of psyllids: *Yangus* sp. 2 and one unknown genus, sp. 3 of Psyllinae/Arytaininae subfamily. The family of

Table 2: List of Host families and genera with associated psyllid species from the center region of Cameroon

| Host family | Host genus | Associated psyllid species |
|----------------|----------------------|--|
| Asteraceae | <i>Vernonia</i> | <i>Diaphorina</i> sp. 1 |
| Connaraceae | <i>Agelaea</i> | <i>Paurocephala</i> sp. 1 |
| Connaraceae | <i>Cnestis</i> | <i>Paurocephala</i> sp. 2 |
| Connaraceae | <i>Jollydora</i> | Euphalerinae gen. 4 sp. 1 |
| Euphorbiaceae | <i>Margaritaria</i> | <i>Epipsylla</i> sp. 1 |
| Euphorbiaceae | <i>Ricinodendron</i> | <i>Diclidophlebia xuani</i> |
| Fabaceae | <i>Afzelia</i> | <i>Kleiniella</i> sp. 2 |
| Fabaceae | <i>Albizia</i> | Psyllinae gen. 3 sp. 1; <i>Yangus</i> sp. 1; <i>Y.</i> sp. 2; <i>Y.</i> sp. 3; <i>Y.</i> sp. 4 |
| Fabaceae | <i>Anthonotha</i> | Psyllinae gen. 1 sp. 1 |
| Fabaceae | <i>Baphiopsis</i> | <i>Colophorina</i> sp. 1; <i>Epipsylla</i> sp. 2 |
| Fabaceae | <i>Dalbergia</i> | <i>Palaeolinbergiella</i> sp. 1; <i>P.</i> sp. 2; Psyllinae gen. 4 sp. 1 |
| Fabaceae | <i>Detarium</i> | Euphalerinae gen. 2 sp. |
| Fabaceae | <i>Dialium</i> | <i>Euryconus</i> sp. 1 |
| Fabaceae | <i>Hylodendron</i> | <i>Ciriactremum nigeriense</i> |
| Fabaceae | <i>Hymenostegia</i> | <i>Ciriactremum</i> sp. 1; <i>C.</i> sp. 2; <i>C.</i> sp. 4; <i>Kleiniella</i> sp. 1 |
| Fabaceae | <i>Leucaena</i> | <i>Heteropsylla cubana</i> |
| Fabaceae | <i>Mellittia</i> | Euphalerinae gen. 1 sp. 1; Euphalerinae gen. 3 sp. 1 |
| Fabaceae | <i>Plagiosiphon</i> | <i>Ciriactremum</i> sp. 5 |
| Fabaceae | <i>Zenkerella</i> | <i>Kleiniella</i> sp. 3 |
| Flacourtiaceae | <i>Homalium</i> | <i>Syntomoza</i> |
| Myrtaceae | <i>Eucalyptus</i> | <i>Blastopsylla occidentalis</i> |
| Rosaceae | <i>Prunus</i> | Psyllinae gen. 2 sp. 1 |
| Simaroubaceae | <i>Desbordesia</i> | <i>Diclidophlebia irvingiae</i> |
| Simaroubaceae | <i>Irvingia</i> | <i>Diclidophlebia irvingiae</i> |
| Sterculiaceae | <i>Leptonychia</i> | <i>Diclidophlebia leptonychiae</i> |
| Sterculiaceae | <i>Triplochiton</i> | <i>Diclidophlebia eastopi</i> ; <i>D. harrisoni</i> |

Fabaceae includes three species; their psyllids belong to the following genera: *Palaeolinbergiella*, one unknown genus sp. 4 of Psyllinae/Arytaininae subfamily, two unknown genera sp. 1 and sp. 3 of Euphalerinae subfamily; within this family, *Dalbergia* genus hosted three different species of psyllids. The family of Connaraceae includes three species; their psyllids belong to the *Paurocephala* genus and one unknown genus sp. 4 of Euphalerinae subfamily. The family of Euphorbiaceae includes two species; their psyllids belong to the *Epipsylla* and *Diclidophlebia* genera. The other families are represented by only one species: Asteraceae, its psyllid belongs to the *Diaphorina* genus; Sterculiaceae, Irvingiaceae and Leptonychiaceae, their psyllids belong to the *Diclidophlebia* genus; *Diclidophlebia eastopi* and *D. harrisoni* were collected on the same Sterculiaceae (*Triplochiton scleroxylon*); Flacourtiaceae, its psyllid belongs to the *Syntomoza* genus; Rosaceae, its psyllid belongs to a non described genus (gen.2) of Psyllinae/Arytaininae subfamily and Myrtaceae, its psyllid belongs to the *Blastopsylla* genus. The host plants of 6 species of psyllids remain unknown.

During higher proliferation, adults and larvae of *H. cubana* invaded the whole surface of buds and young leaves (Fig. 9a). The larvae of *Epipsylla* sp. feeding on *M. discoidae* provoked the appearance of galls on the leaves (Fig. 9b). Damage caused by *Syntomoza* sp. on *H. letestii* (Fig. 9c) and *D. xuani* on *R. heudelotii* are similar to those observed on *H. letestii* (Fig. 9d). The damage consists of distortion and deformation of leaves as well as leaf rolling. *Kleiniella* sp. 2 was associated with *Loesenera talbotii* caused discolouration on its host plant and provoked leaf necrosis. Species such as *Ciriactremum* sp. 1 on *H. afzelii* (Fig. 9e) and *D. leptonychiae* on *L. macrantha* (Fig. 9f) secreted a white waxy filament on their host plants.

Tamesse (2005) recognised, in various regions of Cameroon, among Psyllidae family, 8 subfamilies, 14 genera and 26 species. In the western region of Cameroon, Dzokou *et al.* (2009) investigated 7 subfamilies, 22 genera and 37 species. During the present survey,



Fig. 9: Psyllids damages on host plants, (a) higher proliferation of adults and larvae of *Heteropsylla cubana* invaded on leaves and buds of *Leucaena glauca* Fabaceae, (b) galls induced by larvae of *Epipsylla* sp. 1 on leaves of *Margaritaria discoidea* Euphorbiaceae, (c) distortion and deformation induced by *Syntomoza* sp. on leaves of *Homalium letestii* Flacourtiaceae, (d) distortion and deformation induced by *Diclidophlebia xuani* on leaves of *Ricinodendron heudelotii* Euphorbiaceae, (e) white waxy flocculence produced by *Ciriactremum* sp. 1 on *Hymenostegia afzelii* Fabaceae and (f) white waxy flocculence produced by *Diclidophlebia leptonychia* on *Leptonychia macrantha* Sterculiaceae

we recorded within the same family, 45 species belonging to 24 genera and 7 subfamilies. Nine genera and 36 species are undescribed. Among the 45 species, 27 species are reported in the center region of Cameroon for the first time; also, 5 new genera are recorded in Euphalerinae subfamily and 4 new genera in Psyllinae subfamily. The Psyllidae family is more diverse in Cameroon in contrast of Triozidae family where, according to Tamesse *et al.* (2007), included 2 genus and 35 species. Also, the Phacopteronidae family, less diverse than the Psyllidae family, included in Cameroon 9 psyllids species (Malenovsky *et al.*, 2007).

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