

Revision of the Eurybrachidae (II)

Description of the new genus *Usambrachys*, review of the genera *Parancyra* SYNAVE, 1968 and *Neoplatybrachys* LALLEMAND, 1950 and key to the Afrotropical genera (Hemiptera: Fulgoromorpha: Eurybrachidae)

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Abstract

The Afrotropical genera of Eurybrachidae (Hemiptera, Fulgoromorpha) *Parancyra* and *Neoplatybrachys* are redescribed and reviewed. A new genus *Usambrachys* n. g. is described for a new species, *U. anderseni* n. sp. The name *Parancyra* SYNAVE, 1968 is proposed to replace *Harmosma* FENNAH, 1964 that was preoccupied by *Harmosma* DIAKONOFF, 1963 (Lepidoptera: Tortricidae). The new combination *Parancyra bivulnerata* (FENNAH, 1964) comb. nov. is subsequently proposed. The male genitalia are illustrated and photos of habitus, distribution maps and biological data are provided with the description of the species. An identification key to the Afrotropical genera of Eurybrachidae is finally proposed.

Résumé

Les genres afrotropicaux d'Eurybrachidae (Hemiptera, Fulgoromorpha) *Parancyra* et *Neoplatybrachys* sont redécrits et révisés. Un nouveau genre, *Usambrachys* n. g., est décrit pour une nouvelle espèce, *U. anderseni* n. sp. Le nom *Parancyra* SYNAVE, 1968 est proposé pour remplacer *Harmosma* FENNAH, 1964, préoccupé par *Harmosma* DIAKONOFF, 1963 (Lepidoptera: Tortricidae). La combinaison nouvelle *Parancyra bivulnerata* (FENNAH, 1964) comb. nov. est proposée consécutivement. Les genitalia mâles sont illustrés et des photos d'habitus, des cartes de répartition ainsi que des renseignements concernant la biologie accompagnent les descriptions des espèces. Une clé de détermination des genres d'Eurybrachidae afrotropicaux est finalement proposée.

Key Words: Afrotropical region, Eurybrachidae, revision, generic key, *Parancyra*, *Neoplatybrachys*, *Usambrachys* n. g., *Usambrachys anderseni* n. sp.

1. Introduction

This paper is the second one of a series intended to revise the family Eurybrachidae.

This study starts with the one-by-one redefinition and revision of the genera and will result in a proposal of a more natural classification in the family. This will also allow tentative understanding of the phylogeny and zoogeography of the family.

The Afrotropical fauna of Eurybrachidae contains 8 valid genera (*Amychodes* KARSCH, 1895, *Aspidonitys* KARSCH, 1895, *Parancyra* SYNAVE, 1968, *Mesonitys* SCHMIDT, 1908, *Metoponitys* KARSCH, 1890, *Neoplatybrachys* LALLEMAND, 1950, *Paropioxys* KARSCH, 1890

and *Usambrachys* CONSTANT, n.g.) that are all restricted to that region. A total of 10 genera have been described for the region but the genus *Aspidioxys* LALLEMAND, 1950 has been synonymized with *Amychodes* KARSCH, 1895 by CONSTANT (2004) and the name *Parancyra* SYNAVE, 1968 is here proposed as valid name in place of *Harmosma* FENNAH, 1964 which is preoccupied by *Harmosma* DIAKONOFF, 1963 (Lepidoptera, Tortricidae) [*Harmosma* FENNAH, 1964 and *Parancyra* SYNAVE, 1968 were synonymized by SYNAVE, 1969].

We describe here the three monospecific Afrotropical genera (one being new to science) and provide for those taxa illustrations of the habitus and male genitalia, distribution maps and biological data.

A key to all Afrotropical genera is also proposed as those proposed by FENNAH (1964) for 2 subfamilies (Platybrachinae and Loxocephalinae) are very unsatisfactory (e.g. *Neoplatybrachys* is absent from his key to the genera of Platybrachinae).

2. Materials and methods

The types of all described species have been studied and as much material as possible has been examined. The genitalia of all the males have been checked.

The genitalia are extracted after boiling the abdomen in glacial acetic acid for a few minutes. The pygofer is separated from the abdomen and placed for about one hour in a 10% solution of potassium hydroxide (KOH) at about 100 °C, with some drops of saturated aqueous Chlorazol black solution. It is then placed in glycerin.

For routine identification, only the acetic acid boiling is necessary as the structures on the phallic complex are directly visible after moving aside the gonostyli. The genitalia are placed under the specimen, dry (in a gelatin capsule or glued on a cardboard label) or in glycerin.

The description of the female genitalia follows BOURGOIN (1993) with some additions from the studies of SOULIER-PERKINS (1997) and SOULIER-PERKINS & BOURGOIN (1998) on the family Lophopidae.

Hind wings have also been mounted for a number of specimens: they have been glued on transparent plastic

rectangles with water-soluble Hoyer's liquid.

Each species is described and the genitalia as well as any character useful for identification are figured. Distribution maps and photos of habitus are also provided. The distribution maps were produced using the software *CFF* (BARBIER & RASMONT, 2000).

If necessary, the current names of the localities are mentioned in parentheses after the one transcribed from the label. For the labels of the types, each single label is limited by “ ”.

The few available data about the biology of the species are provided.

The following acronyms are used for the measurements (measurements are taken as in CONSTANT, 2004): BF, breadth of the frons – BT, breadth of the thorax – BTg, breadth of the tegmen – BV, breadth of the vertex – LF, length of the frons – LM, length of the mesonotum – LP, length of the pronotum – LT, total length – LTg, length of the tegmen – LV, length of the vertex.

The acronyms used for the collections are as follows (name of the curator in parentheses):

AMNH: American Museum of Natural History, New-York, U.S.A. (R.T. Schuh)

BMNH: The Natural History Museum, London, United Kingdom (M. Webb)

FSAG: Faculté des Sciences agronomiques de Gembloux (coll. Lallemand), Belgium (S. Patiny)

HNHM: Hungarian Natural History Museum, Budapest, Hungary (A. Orosz)

IRSNB: Royal Belgian Institute of Natural Sciences, Brussels, Belgium (P. Grootaert)

MNHN: Museum National d'Histoire Naturelle, Paris, France (T. Bourgoïn)

NHMB: Naturhistorisches Museum Basel, Switzerland (D. Burkhardt)

NMWC: National Museum and Gallery of Wales, Cardiff, United Kingdom (M. Wilson)

SMNS: Staatliches Museum für Naturkunde, Stuttgart, Germany (W. Schawaller)

ZMUC: Zoological Museum of the University of Copenhagen, Denmark (N. M. Andersen)

ZSMC: Zoologische staatsammlung, München, Germany (K. Schönitzer, T. Kothe)

3. Taxonomic part

DESCRIPTION OF THE TAXA

1. *Parancyra* SYNAVE, 1968

Harmosma FENNAH, 1964: 157

Type-species: *Harmosma bivulneratum* FENNAH, 1964

SYNAVE, 1969: 13 (synonymy of *Parancyra* SYNAVE);

O'BRIEN, 2002: 99 (illustrated, under *Harmosa* (sic!))

Parancyra SYNAVE, 1968: 5

Type-species: *Parancyra splendens* SYNAVE, 1968

SYNAVE, 1969: 13 (synonymized with *Harmosma* FENNAH, 1964)

The replacement of *Harmosma* FENNAH, 1964 by the available name *Parancyra* SYNAVE, 1968 is here proposed as *Harmosma* is preoccupied by *Harmosma* DIAKONOFF, 1963, a subgenus of *Lobesia* GUENÉE, 1845 in the Lepidoptera, Tortricidae (DIAKONOFF, 1963).

ETYMOLOGY: *Harmosma*: despite considerable investigation, the etymology of this name is still unknown.

Parancyra is formed from *par-* (Greek) meaning close and *Ancyra* which is the name of a genus of Eurybrachidae from SE Asia, name assumed here to be derived from the Greek word *Ankyra* meaning anchor (the members of that genus bear 1 tapering ribbon-like process at the apex of each tegmen).

DIAGNOSIS: Easily recognized by the long tapering process of the tegmina, the presence of subocular spines contiguous to the eye on the gena and the lack of a pad of setae on the ventral face of the first hind tarsomere. Restricted to the Afrotropical region.

DESCRIPTION: Medium-sized, elongate, convex bodied.

Head: narrower than thorax; vertex more than twice as broad as long, flat with hind margin carinate; fore and hind margins curved; frons broader than long; ventral 2/3 of frons flat, superior 1/3 transversely humped, partly visible in dorsal view; clypeus much elongate, reaching median trochanters; labium reaching hind trochanters, with last segment longer than broad, more slender than penultimate segment; subocular spines present; ocelli absent; scape short, barely visible; pedicel short, inflated, directed downwards.

Thorax: broader than length of pro- and mesonotum together; pronotum with fore margin carinate, bearing strongly curved transverse carina on disc; longitudinal carinae of mesonotum obsolete, nearly invisible; scutellar joint distinct.

Tegmina: convex, narrow and elongate, apically prolonged in long, ribbon-like process.

Venation: *C* barely distinct from costal margin on basal 1/3; *Sc* and *R* separated close to base; *M* divided at about 1/2 of length of claval joint; *A1+A2* fused with *PCu* before reaching apex of clavus; dense network of cross-veins making tegmina coriaceous.

Hindwings: elongate and slender, broader apically; weakly convex; anal area obsolete; apex cut obliquely, projecting at costal margin; cross-veins numerous.

Legs: I and II long and slender, with tibia and femur flattened (tibia more slender than femur); hind tibia with 5 lateral and 9 apical spines; first hind tarsomere without pad of setae, bearing only a group of 10-12 teeth on apex of ventral side.

Genitalia ♂: anal tube dorso-ventrally flattened; pygofer higher than long in lateral view; gonostyli laterally flattened, elongate and convex; phallic complex with 2 processes projecting from ventral perianthrium.

Genitalia ♀: anal tube elongate, with anus at first 1/3, strongly curved ventrad and v-shaped beyond anus; ventral margin of anal tube strongly laminate; gonoplags unilobous, not surpassing anal tube; gonapophysis IX, not clearly separated from gonoplag; gonapophysis VIII reduced to small points; gonocoxae VIII hump-shaped; vagina sclerified, posterior vagina positioned dorsally; posterior vagina a little larger than anterior one; anterior vagina with small, ventral projection near apex and spermatheca attached apically; bursa copulatrix pear-shaped, with very weak ornamentation, attached postero-dorsally to posterior vagina.

Note: gonapophysis IX of the *Aspidonitys* type (SOULIER-PERKINS, 1997)

Sexual dimorphism: no sexual dimorphism has been observed, except that females are a little larger than males. **Length:** about 17 mm.

DISTRIBUTION: Afrotropical genus presently known only from Cameroon and Central African Republic.

***Parancyra bivulnerata* (FENNAH, 1964) comb. nov.**

Figs. 1 A-D, 2-3, 6, Map 1

Harmosma bivulneratum FENNAH, 1964: 158

SYNAVE, 1969: 13 (synonymy of *Parancyra splendens* SYNAVE); SYNAVE, 1980: 23; O'BRIEN, 2002: 99 (illustrated, under *Harmosa* (sic!) *bivulneratum*)

Parancyra splendens SYNAVE, 1968: 5

SYNAVE, 1969: 13 (synonymized with *Harmosma bivulneratum* FENNAH); SYNAVE, 1980: 23

ETYMOLOGY: *bivulneratum* (Latin): formed from *bi-*, meaning 2 and *vulneratum*, meaning wounded. FENNAH did not give his derivation but it is here assumed that he is referring to the 2 reddish spots on the tegmina.

– *splendens* (Latin) means shining, glittering.

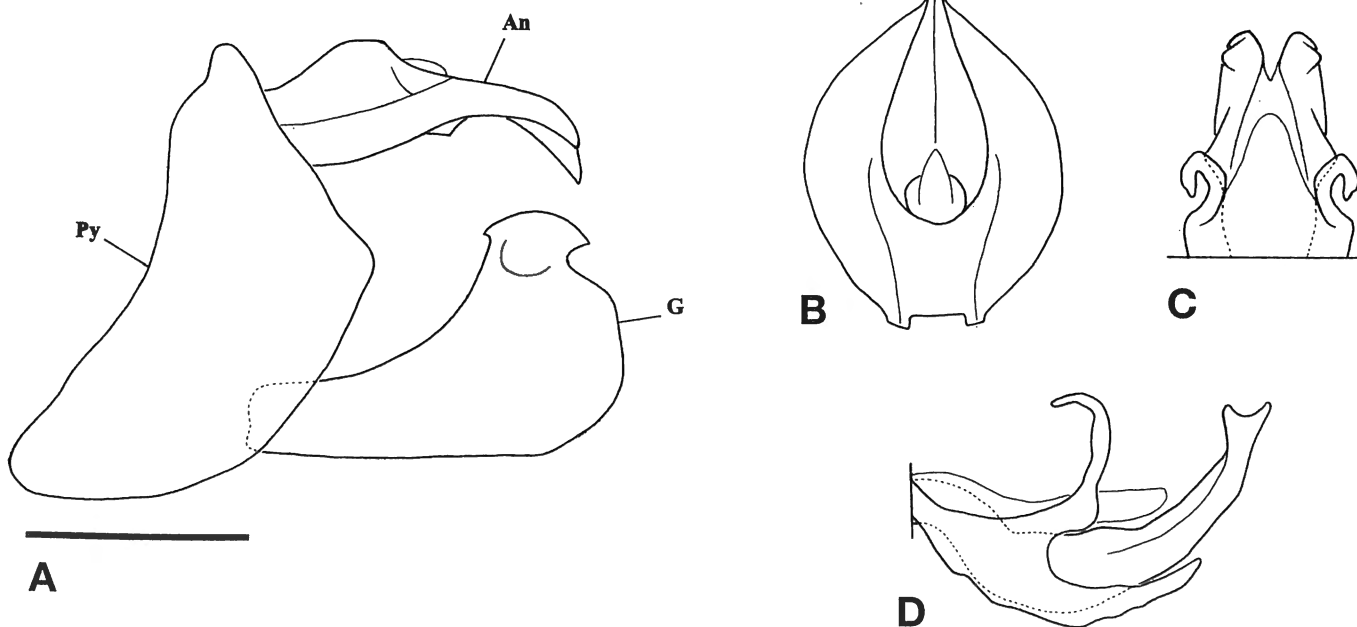
TYPES EXAMINED:

– HOLOTYPE of *Harmosma bivulneratum* (♂): "Holotype" "Kamerun, Melende-Banga, 5.XII.1957, 125m, leg. H. Knorr" "*Harmosma bivulneratum* Fenn., Type, det. RG Fennah" "*Parancyra bivulnerata* (Fennah, 1964) ♀ det. Jérôme Constant 2005" [SMNS]

Note: although the locality on the label is written "Melende-Banga", the correct name should be "Malende-Banga" as stated in FENNAH (1964).

– HOLOTYPE of *Parancyra splendens* (♂): "Holotype" "Boukoko, Rép. Centrafric., Michel Boulard" "H. Synave det., 1968, *Parancyra* g.n. *splendens* n.sp." "Allotype ♂" "H. Synave det., 1969, *Harmosma bivulneratum* Fennah, Allotype ♂" "not Allotype! *Harmosma bivulneratum* Fennah, J. Constant rev." "*Parancyra bivulnerata* (Fennah, 1964) ♂ det. Jérôme Constant 2005" – *genitalia in glycerine* [MNHN]

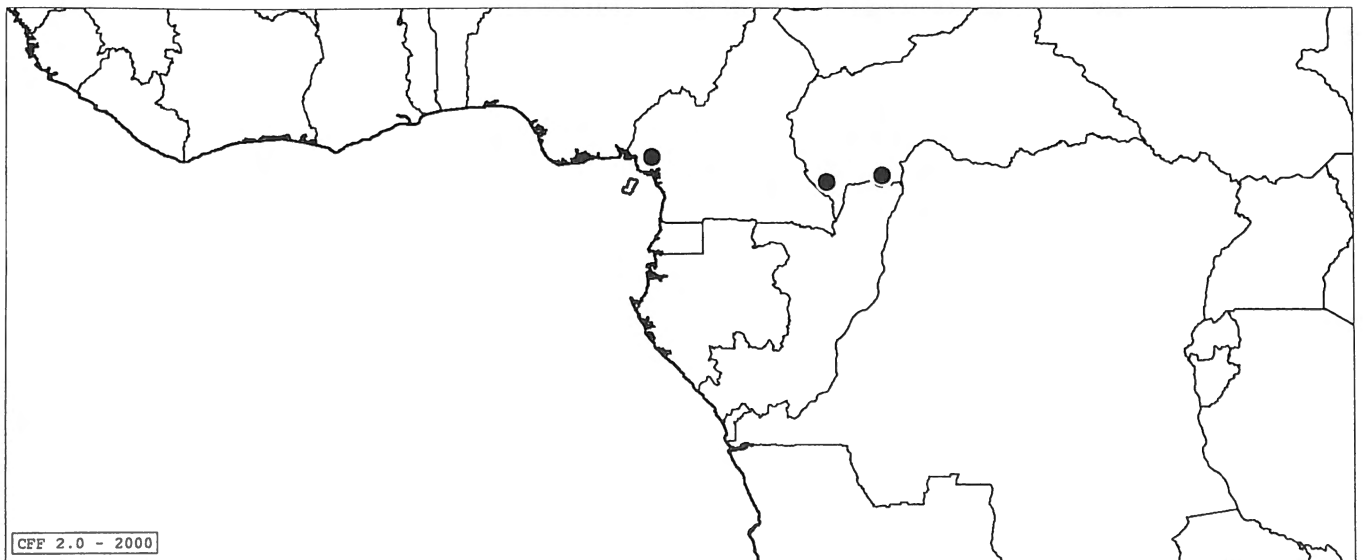
– PARATYPE of *Parancyra splendens* (♀): "Coll. R.I.Sc.N.B., R.C.A.: Boukoko, M. Boulard, 15.V.1967 – on the reverse: R.I.Sc.N.B., I.G. 23.860" "H. Synave det., 1968, *Parancyra splendens* Syn." "H. Synave det., 1969, *Harmosma bivulneratum* Fenn." "Para-type" "*Harmosma bivulneratum*. Fennah." "*Parancyra bivulnerata* (Fennah, 1964) ♀ det. Jérôme Constant 2005" [IRSNB].



Figs. 1A-D — *Parancyra bivulnerata* (FENNAH): genitalia ♂. A. pygofer, anal tube and gonostyli, left lateral view (An – anal tube; G – gonostyli; Py – pygofer). B. anal tube, dorsal view. C. phallic complex, dorsal view. D. phallic complex, left lateral view. Scale 1 mm.



Figs. 2-3 — *Parancyra bivulnerata* sitting on the petiole of a leaf, Central African Republic (pictures by Michel Boulard).



***Parancyra bivulnerata* (Fennah)**

Map 1 — Distribution of *Parancyra bivulnerata* (FENNAH).

Note: SYNAVE (1969) has designated the holotype of *Parancyra splendens* SYNAVE as allotype of *Harmosma bivulneratum* FENNAH.

That designation has no value under taxonomic rules and cannot be accepted.

OTHER MATERIAL EXAMINED: (8 ♂, 8 ♀) – CENTRAL AFRICAN REPUBLIC: 1 ♀: Boukoko, 17.XI.1967, leg. M. Boulard [MNHN]; 1 ♂: idem, 06.X.1966, on cacao-tree, leg. M. Boulard [MNHN]; 1 ♀: idem, 06.III.1968, *Ceiba pentandra* (Bombacaceae), leg. M. Boulard [MNHN]; 1 ♂: idem, 08.X.1970, leg. M. Boulard [MNHN]; 1 ♀: idem, 25.V.1968, leg. M. Boulard [MNHN]; 1 ♂: idem, 12.II.1968, on cacao-tree, leg. M. Boulard [MNHN]; 1 ♀: idem, 04.X.1966, leg. M. Boulard [MNHN]; 1 ♂: idem, 21.V.1967, on cacao-tree, leg. M. Boulard [MNHN]; 1 ♂: idem, 10.II.1970, *Cola urceolata* (Sterculiaceae), leg. M. Boulard [MNHN]; 1 ♀: La Maboke, 25.X.1968, leg. M. Boulard [MNHN]; 1 ♂: idem, 27.XII.1972, on “kokombe”, leg. M. Boulard - Paul Kombo [IRSNB]; 1 ♂: idem, 06.XII.1972, on “kopayoka”, leg. M. Boulard - Paul Kombo [MNHN]; 1 ♀: idem, 03.VIII.1993, on “fessi”, leg. M. Boulard [MNHN]; 1 ♀: idem, 06.VI.1965, P. Teocchi [MNHN]; 1 ♂: Komassa (=Komasasa), 28.V.1968, on cacao-tree, leg. M. Boulard, [MNHN]; 1 ♀: Bagandou (=Lombo), 02.II.1966, leg. M. Boulard, [MNHN].

DIAGNOSIS: Only species of the genus.

DESCRIPTION: LT: ♂ (n = 8): 17.2 mm (16.5 to 17.6); ♀ (n = 8): 17.6 mm (17.0 to 18.3).

Head: yellowish with following parts black: clypeus, dorsal 1/3 and clypeal margin of frons, 2 spots before eye, subocular spines and antennae; posterior part of head infuscate; ratio BV/LV = 2.2; BF/LF = 1.5.

Thorax: pronotum yellowish with anterior narrow black band just behind vertex and big black patch on each side of body; mesonotum infuscate, darker on sides; tegulae infuscate; ratio LP+LM/BT = 0.67.

Tegmina: greenish with cells between crossveins infuscate; conspicuous red patch at costal margin at 1/3 of LTg; often infuscate spot around apex of clavus; process with broad black stripe along sutural margin and narrow one along costal margin, apex black; at base of process, elongate black patch on costal margin and black spot on sutural margin, often connected by narrow black stripe; all black parts glossy; ratio LTg/Btg=5.6; process representing 2/5 of LTg.

Hind wings: blackish with ante-apical, transverse, curved, white band; white band broader at costal margin, often not reaching sutural margin.

Legs: femora I and II crimson; tibia I, tarsi I and II and apex of tibia II infuscate; tibia II yellowish piceous; legs III pale greenish with the following infuscate: dorsal, ventral and hind faces of femur, apex of tibial spines, apex of tibia and tarsus except base of first tarsomere.

Abdomen: yellowish with big infuscate patch on middle of back.

Genitalia ♂: yellowish with the following infuscate: hind margin of pygofer, anal tube and dorsal part of gonostyli; pygofer higher than long in lateral view, with hind margin angulously produced in middle; gonostyli elongate with broad process on dorsal margin, bearing one fore and one hind point (Fig. 1A); anal tube sinuate in lateral view, round on sides and pointed at apex in dorsal view (Fig. 1B); phallic complex: see Figs. 1C-D.

Sexual dimorphism: females about 2.3% bigger than males.

BIOLOGY: Forest species, surely polyphagous as it has been collected on the following trees in Central African Republic: (a) *Theobroma cacao* L. (Sterculiaceae), (b) *Cola urceolata* K. SCHUM. (Sterculiaceae), (c) “kokombe” [local name] = *Trachyphrynium violaceum* RIDL. (Marantaceae), (d) *Ceiba pentandra* GAERTN. (Bombacaceae), (e) “kopayoka” [local name] = *Rauwolfia* PLUM. ex L. spp. (Apocynaceae), (f) “fessi” [local name] = *Carapa* AUBL. sp. (Meliaceae).

It is interesting to note that several of the trees listed are introduced species (e.g. *T. cacao* originates from South America and *C. pentandra* from Asia).

Michel Boulard (*pers. com.*) collected this species on trunks and young branches.

O'BRIEN (2002) states that the species has a protective shape and coloration pattern that make both ends look like heads, with the process of the tegmina being “antennae” and the apical extension of the hind wings, a “head”.

2. *Neoplatybrachys* LALLEMAND, 1950

Neoplatybrachys LALLEMAND, 1950: 149

Type-species: *Neoplatybrachys orientalis* LALLEMAND, 1950

METCALF, 1956: 63

ETYMOLOGY: Formed from the words *neo-* (Greek), meaning new and *Platybrachys*, which is the name of an Australian genus of Eurybrachidae (with *platus* and *brachus* (Greek) meaning, respectively, broad and short).

DIAGNOSIS: Small-sized, greyish-brown coloured, dorso-ventrally flattened. Easily recognized by the following combination of characters: no subocular spines; first segment of hind tarsus with pad of setae; frons concave; restricted to the Afrotropical region.

DESCRIPTION: *Head:* about as broad as thorax; vertex concave with hind and lateral margins carinate, crescent-shaped in dorsal view (no angle between fore and lateral margins); vertex more than 4 times broader than long; frons concave with peridiscal carina on upper half; frons about twice as broad as long; apex of clypeus beyond fore trochanter; apex of labium reaching hind coxae; apical segment of labium broader than long, more slender than penultimate segment; subocular spine and ocelli absent; scape broader than long; pedicel elongate,

directed ventrad, cone-shaped and apically truncate.

Thorax: thorax broader than LP+LM; pronotum with fore margin carinate, median, longitudinal carina; mesonotum with median, longitudinal carina present; scutellar joint marked by depression.

Tegmina: weakly convex, elongate, more than twice as broad as long; costal margin strongly sinuate; apex rounded; clavus closed; costal area broad; veins prominent.

Venation: *C* absent; *Sc+R* with short common stem; first division of *M* at about half of LTg; *Cu* quite distant from claval joint; *A1* and *A2* fused at about of clavus length.

Hind wings: membranous and translucent; apex rounded; anal area well developed; maximum breadth close to base.

Legs: I and II with tibia and femur flattened dorso-ventrally, tibia slender, femur a little broader; strong carina on ventral face of tibiae; hind legs with tibia bearing 3 lateral and 9 apical spines, and, close to base on external face, oblique carina bearing a row of short strong hairs; first hind tarsomere bearing pad of microsetae on ventral face, with on external side of it a group of 9 spines on 2 longitudinal rows.

Genitalia ♂: anal tube dorso-ventrally flattened, broad; pygofer very short; gonostyli laterally flattened, strongly convex, not fused; phallic complex reduced and partly membranous.

Genitalia ♀: anal tube elongate, smoothly curved ventrad, weakly laminate ventrally, cross section V-shaped behind anus; anus at ½ of length; gonoplares unilobous, large, reaching anal tube in lateral view; gonapophysis VIII not visible; gonocoxae developed in big lobe; anterior part of vagina much larger and more sclerified than posterior part, with spermatheca attached apically; posterior part in dorsal position; bursa copulatrix narrow, attached apically to posterior vagina; inner surface of bursa copulatrix with weak, dense and irregular ornamentation.

Note: gonapophysis IX of the *Aspidonitys* type (SOULIER-PERKINS, 1997)

Length: less than 10 mm (average size 7.5 mm for the known species).

Sexual dimorphism: female bigger than the male.

DISTRIBUTION: genus known only from south of the Arabian Peninsula and the region of the Horn of Africa.

***Neoplatybrachys orientalis* LALLEMAND, 1950**

Figs. 4 A-D, 8-10, Map 2.

Neoplatybrachys orientalis LALLEMAND, 1950: 149
METCALF, 1956: 63; DLABOLA, 1980: 78

ETYMOLOGY: *orientalis* (Latin) = from the East. Refers to the geographical distribution of the species in Eastern Africa (Djibouti) and in the Arabian Peninsula (Yemen).

TYPES EXAMINED:

– HOLOTYPE of *Neoplatybrachys orientalis* (♂): “Museum Paris, Obock, coll. A. Bonhoure, 1909” “mars”

“Type” “*Neoplatybrachys orientalis* Lallemand, V. Lallemand det.:

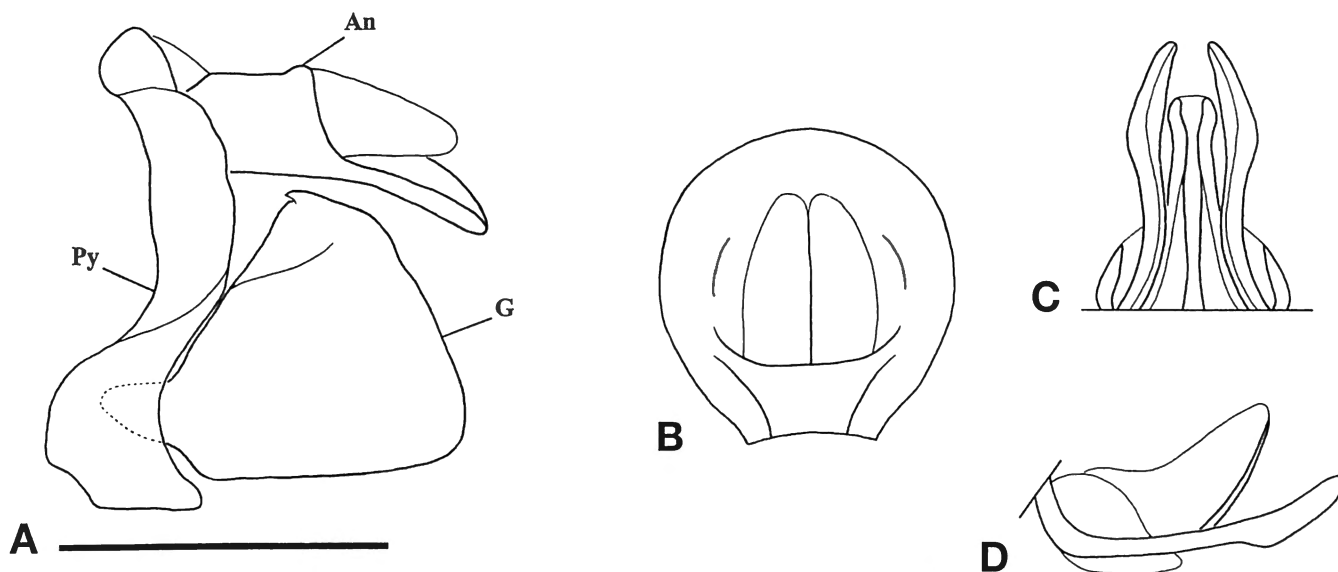
 [MNHN]

– PARATYPES of *Neoplatybrachys orientalis* (3 ♂♂, 7 ♀♀): 1 ♂+1 ♀: “Museum Paris, Obock, Maindron, 871-93” “Paratype” “*Neoplatybrachys orientalis* Lall., V. Lallemand det.:

 “Paratype” [MNHN]; 1 ♀: “Museum Paris, Obock, Dr Jousseume, 116-96” “Paratype” “*Neoplatybrachys orientalis* Lall., V. Lallemand det.: “Paratype” [MNHN]; 1 ♀: “Museum Paris, Obock, Dr Jousseume, 1918” “Paratype” “*Neoplatybrachys orientalis* Lall., V. Lallemand det.: “Paratype” [MNHN]; 1 ♀: “Museum Paris, Aden, Dr Jousseume, 7-97” “Paratype” “*Neoplatybrachys orientalis* Lallemand, V. Lallemand det.: “Paratype” [MNHN]; 1 ♂: “Museum Paris, Djibouti, Dr Jousseume, 1918” “Paratype” “*Neoplatybrachys orientalis* Lallemand, V. Lallemand det.: “Paratype” [MNHN]; 1 ♂: “Museum Paris, Djibouti, H. Couturière, 1897” “♂” “Paratype” “*Neoplatybrachys orientalis* Lallemand, V. Lallemand det.: (dissected) [FSAG]; 2 ♀♀: “Museum Paris, Djibouti, H. Couturière, 1897” “♀” “Paratype” “*Neoplatybrachys orientalis* Lall., V. Lallemand det.: [FSAG]; 1 ♀: “Museum Paris, Djibouti, Dr Jousseume, 1918” “Paratype” “*Neoplatybrachys orientalis* Lallemand, V. Lallemand det.: [FSAG].

Note: LALLEMAND (1950) states that the Type and paratypes were collected by Bonhoure and are deposited at the MNHN. Only the holotype was collected by Bonhoure and 4 out of the 10 paratypes have been retained by Lallemand in his private collection (now deposited in FSAG).

OTHER MATERIAL EXAMINED: (22 ♂♂, 38 ♀♀, 1 ?) DJIBOUTI: 4 ♂♂, 10 ♀♀: Obock, no date, leg. Dr Martin [MNHN]; 2 ♂♂, 2 ♀♀: idem [IRSNB]; 1 ♀: idem, 1918, leg. Dr Jousseume [MNHN]; 1 ♂, 3 ♀♀: idem, no date, leg. Dr Jousseume [MNHN]; 2 ♂♂, 5 ♀♀: idem, no date, leg. Maindron [MNHN]; 1 ♀: Djibouti, no date, leg. Dr Jousseume [MNHN]; 3 ♂♂: Djibouti, 1897, leg. H. Coutière [MNHN]; 1 ♂: idem [IRSNB]; 1 ♂: Obock [MNHN]; 1 ♀: Ouéa (=Wea), 1937-38, leg. Aubert de la Rüe [MNHN] ERITREA: 1 ♀: Ailet (=Aylet), 30-31.V.1963, leg. R. Linnavuori [AMNH]; 1 ♀: Fahet, 09.I.1948, leg. A.R. Waterston [BMNH]; 1 ♀: Assab (=Aseb) [HNHM] SAUDI ARABIA: 1 ♂: Wadi Baish, 07.XII.1936, leg. H. St J.B. Philby [BMNH]; 1 ♀: Hausiya, 18.I.1937, leg. H. St J.B. Philby [BMNH]; 1 ♀: Bu’a (=Buwwah), 06.X.1936, leg. H. St J.B. Philby [BMNH]; 1 ♀: Taiyibat Ism (=Sayyibat al Ism), 01.VIII.1936, leg. H. St J.B. Philby [BMNH]; 1 ex. (no abdomen): Lith (Al Lith) - 10 m. inland, 1.1945, leg. Dr B.P. Uvarov [BMNH]; 1 ♂: Maiain, 10.X.1936, leg. H. St J.B. Philby [BMNH]; 1 ♀: Hizmah (=Izmah), 29.IX.1980, leg. W. Süttiker [NHMB] SOMALIA: 1 ♂: Berbera, 26.VI.1963, leg. R. Linnavuori [AMNH] YEMEN: 1 ♀: Aden: Lahej-Dhala road, 13-14.VII.1963, leg. R. Linnavuori [BMNH]; 1 ♂: idem, on *Calligonum comosum*, [AMNH]; 1 ♀: Hadramawt: Al Mukalla, 07.IV.1992, leg. R. Linnavuori [NMWC]; 1 ♀:



Figs. 4A-D — *Neoplatybrachys orientalis* LALLEMAND: genitalia ♂. A. pygofer, anal tube and gonostyli, left lateral view (An – anal tube; G – gonostyli; Py – pygofer). B. anal tube, dorsal view. C. phallic complex, dorsal view. D. phallic complex, left lateral view. Scale 0,5 mm.

Al Mahfid, 18.IV.1992, leg. R. Linnavuori [NMWC]; 1 ♀: Wadi Al Hoselba (20 Km N Ma'rib), 25.IV.1992, leg. R. Linnavuori [NMWC]; 1 ♂ + 1 ♀: Shabwah, 23.IV.1992, leg. R. Linnavuori [NMWC]; 3 ♂♂, 3 ♀♀: prov. Hadramaut, 25 km NNE Al Mukalla, Al Ain, 20 km NNW Ar Rayyan (14°46'N, 49°18'E), alt. 150m, 14.XI.1996, leg. H. Hacker & al. [ZSMC]; 1 ♀: prov. Abyan, 11 km SW Zinjibar (13°03'40''N, 45°19'22''E), dunes, 18.V.1998, leg. Hacker & al. [ZSMC].

ADDITIONAL DATA: (DLABOLA, 1980) SAUDI ARABIA: 2 ex.: Asir Mts, Wadi Tihama (850m), 23.IV.1979, leg. H.G. Amsel [17°30'N 42°20'E].

DIAGNOSIS: Only species of the genus.

DESCRIPTION: LT: ♀ (n = 38): 8.3 mm (7.2 to 10.0); ♂ (n = 22): 7.0 mm (6.3 to 7.7).

Head: vertex, clypeus and sides of head blackish with pale brown markings to entirely brownish; disc of frons always paler, yellowish, usually with darker, transverse stripe marking the concavity; antennae dark brown; ratio BV/LV = 4.3; BF/LF = 1.9.

Thorax: tegulae, pro- and mesonotum pale brown to blackish brown; mesonotum often pale brown with a big dark patch on disc; ratio LP+LM/BT = 0.9.

Tegmina: pale greyish brown with blackish markings; base of tegmina always pale; blackish markings very variable, usually as follows: a broad, transverse band at first third, and numerous, conglomerate spots on apical third; very few cross-veinlets even near apex; ratio LTg/Btg = 2.5.

Hind wings: hyaline with apex and posterior margin usually slightly infuscate.

Legs: I and II pale brown usually with 3 spots on tibia, stripe and apical spot on femur, infuscate; hind legs entirely pale brown, sometimes a little infuscate.

Abdomen: brown, more reddish on back.

Genitalia ♂: pygofer very short and curved in lateral view; gonostyli with tooth directed anteriorly on dorsal margin (Fig. 4A); anal tube round in dorsal view (Fig. 4B); phallic complex with 2 pairs of elongate, sclerotized processes, rest being membranous (Fig. 4C-D).

Sexual dimorphism: females about 1/6 bigger than males.

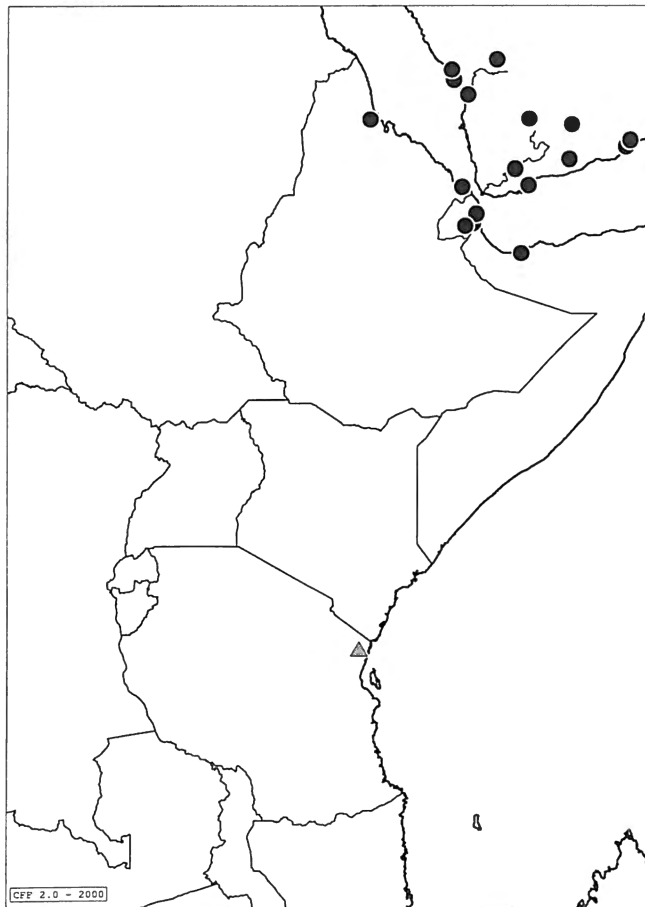
BIOLOGY: Species from arid areas; adults have been collected all year round. The only host-plant recorded is the desert bush *Calligonum comosum* L'HERIT. (Polygonaceae) (one specimen collected by Linnavuori in Yemen).

3. *Usambrachys* CONSTANT n. gen.

Type species: *Usambrachys anderseni* CONSTANT n.sp.

ETYMOLOGY: Name formed by the contraction of the words Usambara (mountains of North Eastern Tanzania) and *brachys* (Greek word meaning «short») which is a common ending of the names of the genera among the family Eurybrachidae.

DIAGNOSIS: Medium-sized. Easily recognized by the following combination of characters: pro and mesonotum taken together about as broad as long; no subocular spines; clavus closed; no pad of setae on ventral face of first hind tarsomere; tegmina with conspicuous emargination on costal half of apical margin; restricted to the Afrotropical region.



● *Neoplatybrachys orientalis* Lallemand
 ▲ *Usambrachys anderseni* Constant

Map 2 — Distribution of *Usambrachys anderseni* CONSTANT and *Neoplatybrachys orientalis* LALLEMAND.

DESCRIPTION:

Head: as broad as thorax; vertex concave with all 4 margins carinate; fore and hind margins curved; vertex more than 3 times broader than long; frons about twice as broad as long, flat, with weak peridiscal carina on dorsal half; clypeus projecting little beyond fore coxae; labium reaching median coxae; last segment of labium longer than broad, more slender than penultimate segment; no subocular spine; ocelli present; scape very short, barely visible; pedicel short, inflated, directed downwards.

Thorax: as broad as pro- and mesonotum together; pronotum with fore margin strongly curved, marked by strong carina not reaching hind margin; one weak median, longitudinal carina on anterior half of disc; hind margin concave in middle; mesonotum with 3 longitudinal carinae on disc, median one not reaching hind margin.

Tegmina: elongate and flat, about 3 times longer than broad; apical margin with conspicuous emargination on anterior half; clavus closed (Fig. 5).

Venation: *C* very weak on basal 1/4, then clearly visible, a bit divergent from costal margin; numerous cross-veins on costal area. *C* confused with cross veins at about two third of tegmen. *Sc* and *R* separated very close to base; *M* divided at base; *Cu* divided at about half of claval area; *A1+A2* reaching apex of clavus; cross-

veinlets numerous on apical third; apical cross-veinlets forming continuous row parallel to apical margin on about two third of breadth.

Hind wings: translucent; anal area well developed; apex rounded; maximal breadth close to base; cross-veins more numerous on apical third.

Legs: I and II with femur and tibia flattened but not foliaceous, tibia slender; hind tibia with 3 lateral and 9 apical spines; first hind tarsomere without pad of setae, bearing only a group of 12 teeth on apex of ventral side.

Genitalia ♀: [note: full dissection of female genitalia has not been undertaken because only one specimen is known for the genus. Only the externally visible structures are described here] anal tube elongate, v-shaped in cross section beyond anus, laterally flattened, bearing sharp carina ventrally, directed dorsad then strongly curved postero-ventrad near anus; gonopods large, unilobous; gonapophysis VIII not observed; gonocoxae VIII developed in large lobe; sternite VII with median suture; apical margin of sternite VII rounded at each side of suture.

Note: gonapophysis IX of the *Aspidonityx* type (SOULIER-PERKINS, 1997), clearly visible but much smaller than in *Mesonityx* SCHMIDT or *Aspidonityx* KARSCH.

Sexual dimorphism: unknown.

Length: about 12 mm.

DISTRIBUTION: genus known only from East Africa (Usambara Mountains in Tanzania).

Usambrachys anderseni CONSTANT n. sp.

Figs. 5, 7, 11, Map 2.

ETYMOLOGY: The species is dedicated to the memory of the late Dr Nils Møller Andersen (ZMUC) who so kindly welcomed me during my visit in the frame of the COBICE project and gave me the opportunity to study the material collected by fogging by Dr Stuart McKamey in Tanzania.

EXAMINED MATERIAL:

HOLOTYPE ♀: "Tanzania: Tanga. Muheza Dist., Kwamgumi For. Res. 4°57'S, 38°44'E. 170-220 m, 6-XI.1995. Fog. 17-EG. Leg. S. McKamey, ZMUC, Denmark"
 "Holotype ♀ *Usambrachys* n. g. *anderseni* n. sp., J. Constant 2005" [ZMUC].

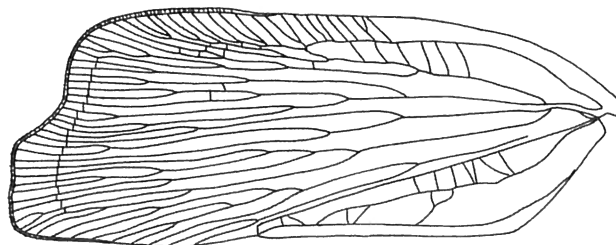


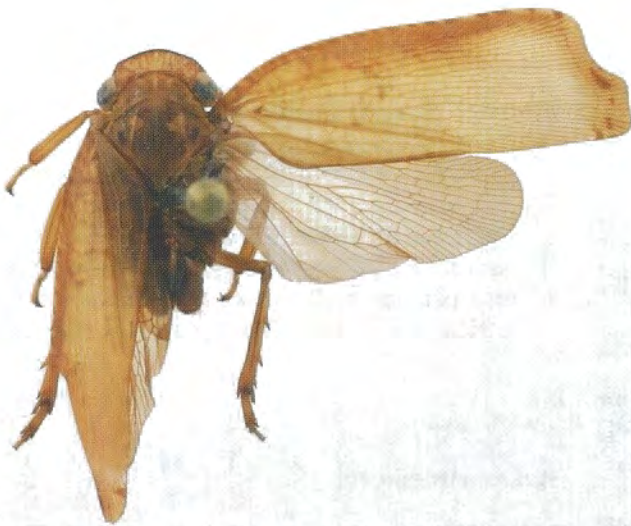
Fig. 5 — *Usambrachys anderseni* CONSTANT: left forewing. Scale 5 mm.



6



8



7



9



10

11

Figs. 6-11 — 6. habitus of *Parancyra bivulnerata* (FENNAH) ♂ (LT = 17.5 mm). 7 & 11. *Usambrachys anderseni* CONSTANT ♀ (Holotype, LT = 12.5 mm). 7. habitus. 11. left hind tarsi, ventral view. 8-10. *Neoplatybrachys orientalis* LALLEMAND ♀ (LT = 8.2 mm). 8. habitus. 9. right hind wing (not at scale). 10. left hind tarsi, ventral view.

DIAGNOSIS: Only known species of the genus.

DESCRIPTION: LT: ♀ (n=1): 12.5 mm.

Note: the following description is based on a specimen that has been stored in alcohol for several years. It is likely that the colour of that specimen is faded and might be more reddish as it has been observed for the specimens of *Amychodes caerulus* KARSCH, 1895 from the same samples.

Head: brown; frons and base of clypeus yellowish; some infuscate spots on side of head, with one around ocelli; antennae brown; ratio BV/LV = 3.3; BF/LF = 1.9.

Thorax: tegulae, pro- and mesonotum brown; 1 dark spot on each side of disc of mesonotum; ratio LP+LM/BT = 1.

Tegmina: brownish, infuscate on costal and apical areas; a series of darker spots on costal margin; some dark spots on sutural half of apical margin; suffused transverse, infuscate markings on basal half.

Hindwings: a little infuscate.

Legs: brown with apex of spines of legs III infuscate.

Abdomen: pale brownish.

BIOLOGY: The only known specimen has been caught by fogging of a mixed canopy in a forest situated 170-220 m above sea level (Stuart McKamey, *pers. com.*).

4 Discussion

A global revision of the Eurybrachidae is needed in order to fully understand the Afrotropical fauna. Despite extensive studies dating from KARSCH (1895, 1899), no serious, comprehensive work has ever been done on the group.

This is surely due in part to the lack of material in collections that can be explained by the small number of collectors (e.g. the 19 known specimens of *Parancyra bivulnerata* are the result of the work of only 3 collectors!), despite the species seeming to be quite abundant at least locally (e.g. 17 of the 19 specimens of *P. bivulnerata* have been collected in 2 places very close to one another). More interest in the group will clearly lead to the discovery of new taxa and to a better knowledge of the biology and distribution of the species (see the "strange" gaps in the distribution map of *P. bivulnerata* or of *Amychodes exsecatus* KARSCH (CONSTANT, 2004).

It seems interesting to emphasize that all the genera of Eurybrachidae present in the Afrotropical region are restricted to that zoogeographical area, in contrast to what can be observed in the sister-family of the Eurybrachidae, the Lophopidae, with the 2 genera found in Africa, *Elasmocelis* SPINOLA, 1839 and *Lophops* SPINOLA, 1839 widely distributed also in Asia (up to Australia for the latter) (SOULIER-PERKINS, 1997).

5. Identification key to the Afrotropical genera of Eurybrachidae

1. First hind tarsomere with a pad of setae and a group of spines on the ventral face (Fig. 10) 2.
 - First hind tarsomere without a pad of setae on the ventral face, bearing only a group of spines (Fig. 11). 3.
2. Ocelli present; frons convex; colour mainly reddish-brown; total length more than 12 mm *Mesonitys* SCHMIDT
 - Ocelli absent; frons conspicuously concave; colour grey and brown; total length less than 9 mm *Neoplatybrachys* LALLEMAND
3. Subocular spine present on the gena, contiguous to the eye 4.
 - No subocular spine. 6.
4. Hind wings long and narrow with anal area obsolete, apex truncate; tegmina convex 5.
 - Hind wings broad with anal area well developed, apex rounded; tegmina flat; hind wings brownish-black in the males, mainly white in the females *Paropioxys* KARSCH
5. Tegmina prolonged in a long ribbon-like process *Parancyra* SYNAVE
 - Tegmina not prolonged, with the apex rounded. *Amychodes* KARSCH
6. Ocelli present; tegmina plane 7.
 - Ocelli absent; tegmina convex, often bearing an apical process curved upwards *Metoponitys* KARSCH
7. Apical margin of the tegmina rounded; present in Central and Western Africa. *Aspidonitys* KARSCH
 - Apical margin of the tegmina with a conspicuous emargination on the external half; present in Eastern Africa *Usambrachys* CONSTANT

Acknowledgments

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