

## Studies on Cydnidae of the Australian Region. VIII. *Cydnus (Orientocydnus) pericarti* n. sp. from Queensland (Heteroptera)

by Jerzy A. LIS

Department of General Zoology, University of Opole, Oleska 22, 45-052 Opole, Pologne

**Résumé.** – Un second représentant du sous-genre *Cydnus (Orientocydnus)* Lis, *C. (O.) pericarti* n. sp., est décrit du Queensland (Australie) et comparé à *C. (O.) borneensis* Lis (Bornéo, Nouvelle-Guinée).

**Summary.** – A second representative of the *Cydnus (Orientocydnus)* Lis, *C. (O.) pericarti* n. sp. from Queensland (Australia), is described, figured and compared with *C. (O.) borneensis* Lis (Borneo, New Guinea).

**Mots clés.** – Hemiptera, Heteroptera, Cydnidae, *Cydnus*, distribution, nouvelle espèce, Australie, Queensland.

Until now two species of the genus *Cydnus* Fabricius have been reported from the Australian Region, namely *C. aterrimus* (Förster) (listed only once from Queensland, DISTANT, 1902) and *C. borneensis* Lis (described from North Borneo, recently recorded from New Guinea, LIS, 1994, 1996). The first species represents the nominate subgenus, while the latter pertains to the subgenus *Orientocydnus* Lis.

Pending my studies on the Old World Cydnidae I have had an opportunity to examine over a hundred Australian specimens with no doubts pertaining to the genus *Cydnus* sg. *Orientocydnus*; it has turned out all the studied males and females represented a new species which is described below. Terminology follows LIS (1994).

### *Cydnus (Orientocydnus) pericarti* n. sp. (fig. 1-5)

*Brachypelta aterrima* Förster, DISTANT, 1902: 101.

Holotype: ♂, N.E. Qld., 19°07'S, 145°23'E, Mt. Halifax summit, 1050 m, Jan.-20 Mar 1991, A. Graham, Pitfalls & intercept; Queensland Museum, Loan No. 94.24, Date: Oct. 1994 (in the collection of the Queensland Museum, Brisbane, Australia).

PARATYPES (51♂, 58♀): 2♀, Aust: SEQ 26°38'S, 152°27'E, Jimna, 640m, 2 Mar 1992-12 Apr 1992, D.J. Cook, Rf intercept; 2♀, Mossman Bluff Track, 5-10km W Mossman, N. Qld, 16-30 Dec 1988, Monteith, Thompson & Anzses; 14♂, 8♀, *idem*, flt intercept, site 4 - 600m, site 5 - 760m, site 6 - 860m, site 7 - 1000m, site 7A - 930m, site 10 - 1300m, 20 Dec 1989 - 15 Jan 1990; 1♀, *idem*, site 7 - 1000m, flt intercept, 1-17 Jan 1989; 2♂, *idem*, flt intercept, site 6 - 860m, 1-16 Jan 1989, flt intercept; 5♂, 3♀, Bluewater Range, 50km WNW Townsville, N.E. Qld, 6-9 Dec 1986, 700m, Monteith, Thompson & Hamlet, flight intercept trap; 1♂, 2♀, Bluewater Range, 45km NW Townsville, N.E. Qld, 7 Dec 1986 - 16 Feb 1987, Monteith, Thompson & Hamlet, RF, pitfall traps, 750m; 1♂, 3♀, Charmillin Ck. Xing, 950m, Tully Falls Rd., N.Qld, 8 Dec 1989 - 5 Jan 1990, Monteith, Thompson & Janetski, pitfall & intercept traps; 2♀, Paluma Dam Rd., N. Qld, Nov 17 - Dec 8 1990, Monteith & Seymour, flt intercept trap, Site 4 -750m, Site 3 - 800m; 1♀, Mt Finnigan, 850-950m, via Helenvale, N.Qld, 3-5 Dec 1990, Cook, Thompson & Roberts, pitfall traps; 1♂, Qld, N.E., Mt Finnigan, 37km S Cooktown, 21 Apr 1982, Monteith Yeates Cook, QM Berlesate N° 410, 15°49'S, 145°17'E, Rainforest 1050m, sieved litter; 1♀, SEQ 27°03'S, 152°41'E, Mt Mee, 320m, 3 Mar 1992 - 12 Apr 1992, D.J. Cook, Rf intercept; 1♀, N.E. Qld, 15°48'S, 145°17'E, Mt Finnigan, 940m, 4 Dec 1990 - 17 Jan 1991, Qld. Mus. & Anzses, flt intercept, site 1; 2♂, 2♀, SEQ 28°00'S, 152°37'E, Mt French NP, 420m, 29 Feb 1992 - 11 Apr 1992, D.J. Cook, Rf intercept; 5♂, 5♀, 2km SE Mt Spurgeon, via Mt Carbine, N. Qld, 20 Dec 88 - 4 Jan 1989, Monteith, Thompson & Anzses, 1100m, RF, flt intercept; 1♀, N.E. Qld, 16°22'S, 145°13'E, 7 km N. Mt Spurgeon (Camp 2), 17-19 Oct 1991, 1200-1250m, Monteith Janetski Cook & Roberts; 1♀, SEQ 25°57'S, 153°07'E, Cooloola NP, 140m, 3 Mar 1992 - 21 Apr 1992, D.J. Cook, Rf intercept; 5♂, 4♀, N.E. Qld, 15°52'S,

145°14'E, Mt Misery summit, 850m, 6 Dec 1990 - 17 Jan 1991, Qld. Mus. & *Anzses*, flt intercept, site 2, site 3; 1♀, N.E. Qld, 15°53'S, 145°13'E, Mt Misery road, 730m, 6 Dec 1990 - 17 Jan 1991, Qld. Mus. & *Anzses*, flt intercept, site 1; 1♂, 1♀, N.E. Qld, 19°07'S, 145°23'E, Mt Halifax summit, 1050m, Jan - 20 Mar 1991, *A. Graham*, pitfalls & intercept; 2♂, 2♀, N.E. Qld, 19°07'S, 145°23'E, Mt Halifax, S.E. Ridge, 950m, Jan - 20 Mar 1991, *A. Graham*, pitfalls & intercept; 2♀, N.E. Qld, 19°07'S, 145°23'E, Mt Halifax summit, *D. Cook*, 21 Mar - 10 May 1991, pitfalls & intercept; 2♀, N.E. Qld, 15°48'S, 145°12'E, Mt Sampson, 600-790m, 27 Dec 1990 - 18 Jan 1991, *Anzses* Exp., flt intercept traps; 1♀, SEQ 28°14'S, 153°14'E, Numinbach Arch., 320m, 1 Jan 1992 - 29 Feb 1992, *D.J. Cook*, Rf intercept; 2♀, C. Qld, 21°10'S, 148°31'E, Broken R., Eungella, 750m, 17 Nov 92 - mid Apr 1993, *D. Cook & G.B. Monteith*, RF intercept & pitfalls; 1♀, Credith, Eungella, Qld., 14-20.iv.1975, *V.E. Davies*, pitfall trap, U.Q.I.C., Loan 790; 1♂, 2♀, C. Qld, 21°02'S, 148°57'E, Mt Blackwood, 590m, 18 Nov 92 - mid Apr 1993, *D. Cook & G.B. Monteith*, RF intercept & pitfalls; 1♀, C. Qld., 21°15'S, 148°33'E, Mt Dryander, 650m, 21 Nov 92 - mid Apr 1993, *D. Cook & G.B. Monteith*, RF intercept & pitfalls; 1♀, C. Qld., 21°07'S, 148°31'E, Pease's Lkt, Eungella, 17 Nov 92 - mid Apr 1993, *D. Cook & G.B. Monteith*, 900m, RF intercept & pitfalls; 1♀, Gadgarra State For., 10km E. Lake Eacham, N.Q. 9-31 Dec 1989, 700m, *Monteith Thompson & Janetski*, pitfall & flt intercept; 1♀, Qld, NE, Kirrama Range (Mt Pershouse), 12 Dec 1986, *G. Monteith G. Thompson*, Q.M. Berlesate N° 734, 18°12'S, 145°45'E, rainforest, 930m, sieved litter; 1♀, Mt Mee State Forest, S.E. Qld, 16.iv.1973, *G.B. Monteith*, U.Q.I.C., Loan 790; 2♂, Windsor Tableland, NQld, 27 Dec 1988 - 8 Jan 1989, *E. Schmidt & Anzses*, site 9, Flt. intercept; 1♂, N.E. Qld, 15°43'S, 145°17'E, Big Tableland, 740m, 20 Dec 1990 - 8 Jan 1991, *Anzses* Exp., flt intercept trap & pitfalls; 2♂, C. Qld, 21°04'S, 148°38'E, Finch Hatton Gorge, 300m, 18 Nov 92 - mid Apr 1993, *D. Cook & G.B. Monteith*, RF intercept & pitfalls; 1♂, C. Qld., 20°50'S, 148°34'E, Mt Macartney, 900m, 19 Nov 92 - mid Apr 1993, *D. Cook & G.B. Monteith*, RF intercept & pitfalls; 1♂, C. Qld., 20°20'S, 148°45'E, Mt Hayward, 350m, 10 Nov 92 - mid Apr 1993, *D. Cook & G.B. Monteith*, RF intercept & pitfalls; 1♂, SEQ, 26°37'S, 152°41'E, Little Yabba Ck., 150m, 2 Mar 1992 - 12 Apr 1992, *D.J. Cook*, Rf intercept; 1♂, SEQ, 26°38'S, 152°39'E, Booloomba Ck., 200m, 2 Mar 92 - 12 Apr 1992, *D.J. Cook*, Rf intercept; 1♂, SEQ, 27°35'S, 151°37'E, Redwood Park, Toowoomba, 23 Dec 1991 - 10 May 1992, 350m, *H. Janetski*, Rf intercept. Two paratypes in the collection of the University of Queensland, Brisbane, Australia; the remaining paratypes in the collection of the Queensland Museum, Brisbane, Australia.

**Etymology:** I have the pleasure to dedicate this species to Mr. Jean Péricart, an outstanding French heteropterist.

**Description:** Body dark castaneous, polished.

Head (fig. 1) dorsally with more or less developed transverse rugae; clypeus free, as long as or slightly longer than paraclypei, distinctly broadened in apical half and sometimes with minute, hardly visible punctures; paraclypei punctate in lateral parts and with a conspicuous patch of larger punctures between the eye and the ocellus on either side; each paraclypeus with two (in a few specimens three) submarginal setigerous punctures bearing long hair-like setae; eyes rounded, reddish brown, ocular index 3.9-4.6; ocelli brown or reddish brown, interocellar index 2.0-3.0; antennae brown or pale brown, 2nd segment shorter than the 3rd; rostrum brown, pale brown or yellowish brown, long, reaching posterior coxae.

Pronotum with large, slightly elevated callal areas; pronotal disc with a row (often interrupted medially) of conspicuous large punctures behind the callal areas; posterior half of a disc from almost impunctate to densely punctured with both large and small punctures; a transverse patch of few punctures is present also right behind the head; each lateral margin with 3-4 submarginal setigerous punctures in anterior half, the posterior half without setigerous punctures.

Scutellum basally slightly elevated; its disc sparsely punctured with punctures distinctly larger than those on pronotum and slightly larger than those on corium; anterolateral angles alutaceous, impunctate; apex acute.

Corium distinctly punctured; clavus with two rows of punctures (one complete, the second short); mesocorium with two rows of punctures paralleling clavo-corial suture, the remaining surface with irregularly scattered punctures; exocorium basally with a few punctures, and with irregular row of punctures paralleling costal margin; costal area with a single submarginal setigerous puncture; membrane brown or milky brown, surpassing the apex of abdomen.

Propleuron polished and smooth, sometimes alutaceous; depression with a conspicuous row of punctures; anterior convexity neither punctured nor grooved.

Abdominal sternites punctured laterally. Legs pale brown or yellowish brown, not specifically modified.

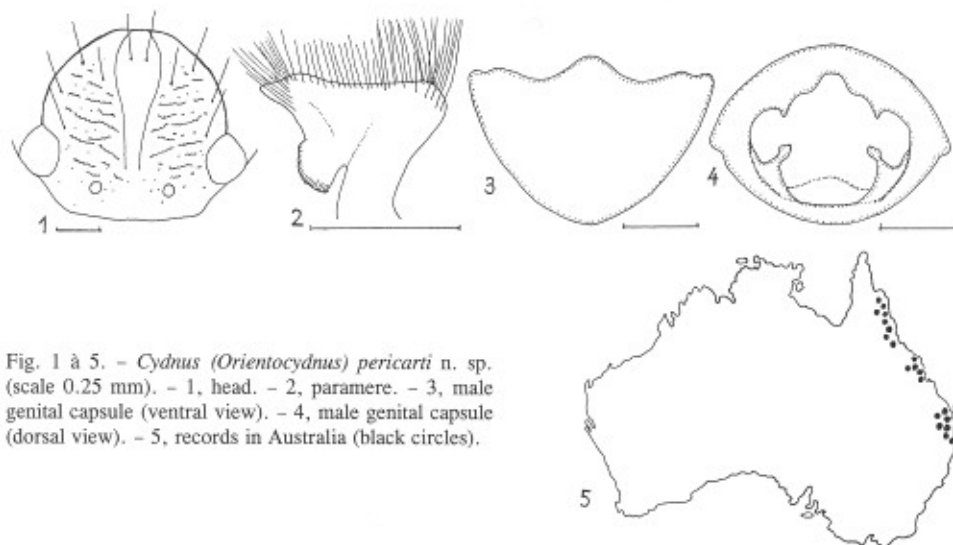


Fig. 1 à 5. - *Cydnus (Orientocydnus) pericarti* n. sp. (scale 0.25 mm). - 1, head. - 2, paramere. - 3, male genital capsule (ventral view). - 4, male genital capsule (dorsal view). - 5, records in Australia (black circles).

Paramere as in fig. 2; lower margin of genital capsule with more or less rounded process in the middle (fig. 3); opening of male genital capsule with distinct insinuation in the upper margin (fig. 4).

Measurements (in mm) ( $\sigma$  and  $\varphi$  respectively): body length 5.91-7.39, 6.21-7.88; body width 3.12-3.82, 3.20-4.29; head length 0.98-1.41, 1.26-1.48; head width 1.31-1.58, 1.47-1.77; pronotum length 1.61-2.32, 1.99-2.46; pronotum width 3.05-3.65, 3.08-4.19; scutellum length 1.51-1.87, 1.73-2.32; scutellum width 1.73-2.36, 1.85-2.51; antennal segments: 0.31-0.38 : 0.27-0.40 : 0.43-0.55 : 0.52-0.72 : 0.70-0.79 : 0.33-0.40 : 0.37-0.45 : 0.50-0.60 : 0.59-0.77 : 0.77-0.97.

**Distribution:** Known only from the north-eastern and eastern coasts of Queensland (fig. 5).

**Remarks:** Basing on the collecting data one can conclude that the new species occurs at the altitude of 140-1300m a.s.l., and it appears to prefer the level between 850-1100m (ca. 61% of the material were collected there). Majority of the specimens has been caught from pitfalls and flight intercept traps; two were collected from a sieved litter in a rainforest.

**Comparative notes:** The new species can be easily distinguished from the second representative of the subgenus, namely *C. (O.) borneensis* Lis, by the body colour (*borneensis* - black or blackish brown, *pericarti* - dark castaneous), the head shape (*borneensis* - more elongated, *pericarti* - more broadly rounded), the clypeus length (*borneensis* - shorter than and laterally covered by paraclypei, *pericarti* - as long as or slightly longer than paraclypei, totally free), the sculpture of dorsal head surface (*borneensis* - paraclypei with deep punctures, *pericarti* - paraclypei with more or less visible transverse rugae, punctuation weaker and sometimes almost indistinct), and by the number of submarginal setigerous punctures on lateral margins of pronotum (*borneensis* - 4-5, *pericarti* - 3, rarely 4).

Of these two species, *C. (O.) borneensis* externally resembles representatives of the genus *Cydnopeltus* Horváth, while *C. (O.) pericarti* at the first sight is more similar to *Cydnus* (s.str.) *aterrimus* Förster (and that's why Distant, 1902 assigned the specimen from Queensland to the latter species).

Since *C. (O.) borneensis* is known only by female specimens I was not able to compare male genital structures of the two species of the subgenus.

ACKNOWLEDGEMENTS. - I would like to express my thanks to Dr. G.B. Monteith (Queensland Museum, Brisbane, Australia) and Dr. M.A. Schneider (University of Queensland, Brisbane, Australia) for

the loan of specimens. My special gratitude is due to Mr. J. Péricart (Montereau, France) for help in publishing this paper in the *Bulletin de la Société entomologique de France*.

## REFERENCES

- DISTANT W. L., 1902. – Rhynchota, vol. 1. *Fauna of British India, including Ceylon and Burma*. London: 438 pp.
- LIS J. A., 1994. – *A revision of Oriental burrower bugs (Heteroptera: Cydnidae)*. Bytom, 349 pp.
- 1996. – A review of burrower bugs of the Australian Region, with a discussion on the distribution of the included genera (Hemiptera: Heteroptera: Cydnidae). *Genus (Wroclaw)*, 7: in print.

*Vient de paraître:*



VIES  
&  
MÉMOIRES DE  
*Cigales*

PROVENCE  
LANGUEDOC  
MÉDITERRANÉE

MICHEL BOULARD  
*École Pratique des Hautes Études et Muséum National d'Histoire Naturelle, Paris.*  
BERNARD MONDON  
*L'Érudition*  
F O U L T R • X I

À L'INTÉRIEUR:  
**1 CD**  
« le chant des Cigales »

*Éditions de  
l'Équinoxe,*

Domaine de  
Fongisclar,  
Draille de Magne,  
F - 13570  
BARBENTANE

Tel: 90 94 98 71  
Fax: 90 94 98 68

CCP Montpellier  
3 579 56 D

Prix: 185 F  
DC compris!  
Frais d'envoi: 28 F

Livre broché,  
format 22 × 22 cm,  
158 pages,  
341 illustrations  
dont 57 en couleurs

*La France méditerranéenne compte seize espèces de Cigales ...!*

*Michel Boulard* donne un condensé, parfois détaillé, toujours richement et superbement illustré, de la morphologie, de la biologie, aérienne, endophyte et souterraine, et de la taxinomie de ces surprenants et attachants insectes avec, dans le texte, une "Première": l'édition de véritables cartes d'identité acoustiques et même de cartes d'éthologie acoustique, illustrées par le disque joint.

*Bernard Mondon*, quant à lui, nous réserve la surprise de ses découvertes littéraires, historiques et artistiques, nous informant sur les légendes et les arcanes folkloriques que les Cigales méditerranéennes ont fait naître au cours des temps.