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## Two new species of the genus *Dyschiriodes* (Coleoptera: Carabidae: Scaritinae: Dyschiriini) from South America and notes about next species from the same region. Part 2

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# Taxonomy, new species, faunistics, Coleoptera, Carabidae, *Dyschiriodes*, Neotropical Region, Argentina, Peru, Bolivia, Brazil

Abstract. *Dyschiriodes erwini* sp. n. and *D. clorinda* sp. n. from Argentina are described, illustrated and compared to the similar taxa. *D. weyrauchi* (Kult, 1950) is redescribed, its status is discussed and synonymy to *D. erythrocerus* (LeConte, 1857) is proposed. New faunistic data to next four Neotropical *Dyschiriodes* Jeannel, 1941 and taxonomical comments to *D. peruanus* (Fedorenko, 1991) are given. *D. selvas* Fedorenko, 1999 is herewith reported for Peru and *D. peruanus* for Bolivia at the first time.

## INTRODUCTION

Neotropical species of the genus *Dyschiriodes* were most recently overviewed by Bulirsch (2006). Most species (16 from 17 known) belong to the *D*. (*Eudyschirius*) pampicola group with 3 subgroups (in the sense Fedorenko, 1999) and were described by Putzeys (1866), Kult (1950), Fedorenko (1991a,b, 1999) and Bulirsch (2006). The last known species, *D*. *weyrauchi* (Kult, 1950), described from Peru in single HT, belongs to the very different Holarctic *D*. (*Dyschiriodes*) nitidus group.

The main purpose of this article is to describe and illustrate 2 new species and to compare them to the similar taxa, to quote new faunistic data about next four species, to discuss status of *D. weyrauchi* and to extend/refine descriptions of *D. weyrauchi* and *D. peruanus*.

## MATERIAL AND METHODS

Material of the Neotropical *Dyschiriodes* Jeannel, 1941 species studied/determined by author before 2006 was quoted in Bulirsch (2006); recently studied material from collections of USNM (T. Erwin), CNMC (F. Génier) and authors collections, together 104 specimens of 4 known and 2 new species, is described/cited here.

Standard measurements follow Fedorenko (1996). Length of body is given with accuracy 0.05 mm, other measurements, ratios and means are down to two decimal places. All specimens of the new species and several non type specimens have been measured. Label data of all specimens are quoted verbatim. Male genitalia (aedeagi) were embedded in Canada Balsam (HT of *D. erwini* sp. n.) or were fixed with watersoluble glue.

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The following codens are used to indicate the depository of specimens:

ADVA A. Dostal collection (incl. K. Kult collection), Vienna, Austria;

CNMC Canadian Museum of Nature, Ottawa, Canada;

ISNB Institute Royal des Sciences Naturelles de Belgique, Bruxelles, Belgium;

PBPC P. Bulirsch collection, Praha, Czech Republic;

USNM National Museum of Natural History, Washington D.C., USA. Next used abbreviations:

ASP: apical setiferous puncture(s); BSP: basal (prescutellar) setiferous puncture(s); DSP: dorsal setiferous puncture(s); PASP: preapical setiferous puncture(s); PHSP: posthumeral setiferous puncture(s)

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HT: holotype(s); PT: paratype(s)

/ (a forward slash): indicates the end of a line on locality labels

//: indicates the end of a label and the beginning of the next one

## RESULTS

In the following text there are described two new species, refined descriptions of next two species and listed new findings of the genus *Dyschiriodes* from South America.

#### Dyschiriodes (Dyschiriodes) nitidus group

This almost exclusively Holarctic group contains about 20 species. From South America known only in one species, Peruvian *D. weyrauchi* (Kult, 1950).

## Dyschiriodes weyrauchi (Kult, 1950)

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(Fig. 1)

**Material examined.** Holotype labelled: "Pérou/ Prov. Huallaga/ Tocache 500m/ G A Baer 10. II. 1900// Type// D. Weyrauchi Kt./ det K. Kult (19)50// Weyrauchi Kt./ det K. Kult (19)50, (ADVA).

**Redescription.** Habitus as in Fig. 1; length 4.60 mm. Dark brown, surface with green-bronze metallic lustre, anterior part of head, elytral base and apex brownish; legs rusty red, antennae and mouth-parts slightly lighter.

Head. Front margin of clypeus between moderately protruded lateral lobes slightly convex, not forming central tooth; clypeofrontal area with broadly depressed transverse furrow; facial furrows deep and long, parallel in anterior two thirds then strongly diverged posteriorly; distance between them narrower than eyes length. Surface even, smooth, with fine and sparse micropunctures. Eyes moderately big, convex. Antennae submoniliform.

Pronotum. Strongly convex, outline regularly rounded; very slightly attenuated anteriorly; 0.89 times as wide as long, 1.30 times as wide as head, widest in second third. Anterior angles blunt, slightly rounded, posterior ones broadly rounded. Font transverse impression deep, not punctate; median line fine, especially in middle; lateral channel narrow, reflexed lateral margin extended slightly beyond middle of interval between anterior and posterior setiferous

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punctures. Surface mirror-like shiny, with very fine micropunctures.

Elytra. Long-ovate, 1.76 times as long as wide, 1.37 times as wide as pronotum; base moderately sloping; outline moderately broadened on sides, broadest at about middle, slightly more strongly attenuated towards apex than towards moderately protruded humeri without humeral tooth; suture broadly, shallowly depressed at base. Base without basal border and tubercles; BSP distinctly connected with first stria. Striae 1-7 moderately deep, moderately punctured; striae punctures finer apically, striae 2-3, 6-7 basally and 2-7 apically strongly diminish. Intervals slightly vaulted in basal two thirds, flattened latero-apically. PHSP: 1, DSP: 2 (anterior puncture missing, both punctures in interval 3, as large as striae punctures), ASP: 2 (in deep apical stria).

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Protibia. Apical spine moderately curved backwards and slightly inwards, longer than apical spur; latter slightly curved apically; distal marginal tooth small, very blunt, proximal one indistinct.

**Comment.** *D. weyrauchi* was correctly described by Kult (1950). Kult named *D. truncatus* (LeConte, 1857) and *D. erythrocerus* (LeConte, 1857) as most similar species and compared *D. weyrauchi* to them. According to Bousquet (1988) and authors material (1 specimen from USA, Indiana), *D. truncatus* can be distinguished by not shortened reflexed lateral margin of pronotum, disappeared slightly below posterior setiferous puncture; by darker legs and antennae and by striae 4-5 strongly deepened on base; on the other hand *D. weyrauchi* fully corresponds with Bousquet's key and figures of *D. erythrocerus* as well as with authors material (9 specimens from USA, diverse localities). Kult (1950) distinguished *D. erythrocerus* from *D. weyrauchi* only by "elytra with more rounded sides, striae much deeper and intervals more convex". Among studied specimens all of these figures slightly vary within species range so that it is not possible to exactly distinguish *D. weyrauchi* from *D. erythrocerus* on the basis of these figures. I assume that *D. weyrauchi* is a junior synonym to *D. erythrocerus*. It is necessary to find next material in Peru (or generally in South America) to either confirm or disprove this synonymy because occurrence of *D. erythrocerus* and whole *D. nitidus* group in South America is doubtful.

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#### Dyschiriodes (Eudyschirius) pampicola group

Neotropical group defined by Fedorenko (1996, 1999), splitted by Fedorenko (1999) to the *D. bryanti*, *D. pampicola* and *D. minarum* subgroups, to date with 16 known species.

## Dyschiriodes (Eudyschirius) erwini sp. n. (Figs 2, 2a,b)

**Type material.** Holotype ( $\mathcal{C}$ ) labelled: "S(antia)go del Estero/Añatuya/ IV.(1)963 Kohler// ARGENTINA/ 1968 Colln/ J Daguerre" (USNM). Paratypes. (9 specimens): with the same data as HT, (USNM, PBPC).

Description. Habitus as in Fig. 2; length 3.80-4.50 mm (HT 4.20 mm, mean of 10 measured

specimens 4.21 mm). Dark brown, surface with very slight bronze metallic lustre; head in its anterior part, elytral base and latero-apical part of elytra slightly (by HT and some PT) to distinctly lighter (by remaining PT); legs rusty red, antennae and mouth-parts lighter.

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Head. Anterior margin of clypeus between distinctly protruded lateral lobes faintly to moderately convex, not forming distinct central tooth; clypeofrontal area with slightly impressed, transverse (by one PT slightly obtusangular) furrow and with next 1-2 finer, transverse, irregular furrows; facial furrows deep and short, parallel in anterior two thirds then slightly diverged posteriorly; distance between them slightly larger than eyes length. Surface even, smooth, with very fine and sparse micropunctures. Eyes moderately big, convex. Antennae submoniliform.

Pronotum. Strongly convex, outline regularly rounded; slightly attenuated anteriorly; 1.05-1.09 (HT 1.05, mean 1.07) times as wide as long, 1.55-1.62 (HT 1.56, mean 1.59) times as wide as head, widest in second third. Anterior angles blunt, slightly rounded, posterior ones broadly rounded. Font transverse impression distinct, deep, very finely punctate; median line fine, especially in middle; lateral channel moderately broad, reflexed lateral margin extended slightly beyond posterior setiferous punctures. Surface mirror-like shiny, with very fine micropunctures.

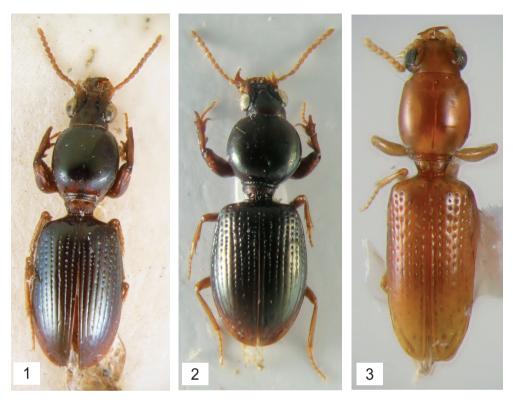
Elytra. Short-ovate 1.51-1.56 (HT 1.52, mean 1.53) times as long as wide, 1.26-1.35 (HT 1.29, mean 1.29) times as wide as pronotum; base very slightly sloping; outline moderately broadened on sides, broadest at about middle, more strongly attenuated towards apex than towards distinctly protruded humeri, with small humeral tooth; suture not depressed at base. Base with fine, vestigial basal border, without tubercles (by 2 PT with single, vestigial); BSP large, indistinctly connected with first stria. Striae fine, first striae distinctly deeper in basal half; moderately punctate, punctures abruptly disappearing in third fourth; punctures distinctly narrower than width of intervals; striae 1, 7-8 deep in apical fourth; intervals slightly vaulted in basal part, flattened latero-apically. PHSP: 3, DSP: 0/0-1 (by HT and 3 PT anterior puncture on one elytra in middle of interval 3, by 6 PT DSP missing), ASP: 2 (in deep apical stria).

Protibia. Apical spine moderately curved backwards not inwards, shorter than apical spur; latter moderately curved apically; distal marginal tooth large, sharp, proximal one small, blunt.

Mesothorax. Peduncle with shallow vertical slot.

Aedeagus. Laterally as in Fig. 2b; by HT 0.90 mm long, median lobe regularly, moderately bent down; flagellum (not illustrated) typical to species group: very long, spiral, with about 5 coils. Apical lamella as in Fig. 2a; medium sized, ventrally rounded, broadly concave, excentric.

**Differential diagnosis.** *D. erwini* sp. n. belongs to the *D. minarum* subgroup of the *D. pampicola* group (in the sense Fedorenko, 1999). From the most similar *D. bruchi* (Kult, 1950), it can be distinguished by smaller body (length 3.80-4,50 mm versus 5.00-5.70 mm); by head with slightly protruded anterior margin of clypeus (versus strongly protruded); by pronotum narrower (ratio width/ length 1.05-1.09 versus 1.12-1.17), with finely punctured anterior transverse impression and with finer median line; by elytra slightly longer (ratio 1.51-



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Figs 1-3. Habitus of HT (actual length in parentheses behind the name). 1- *Dyschiriodes weyrauchi* (Kult, 1950) (4.60 mm); 2- *D. erwini* sp. n. (4.20 mm); 3- *D. clorinda* sp. n. (2.35 mm).

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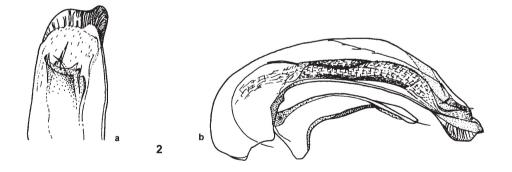


Fig. 2. *Dyschiriodes erwini* sp. n.: 2a- Apex of aedeagus of HT from ventral view. 2b- Aedeagus from right lateral view;

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1.56 versus 1.47-1.51), with 0/0-1 DSP with less convex outline, with base without distinct tubercles; with stria 7 deeply impressed in apical half (by *D. bruchi* diminish apically) and with coarser striae 7-8 punctures. *D. erwini* sp. n. can be distinguished from *D. darwini* (Kult, 1950) by different colour; by elytra much broader, with DSP: 0/0-1, without distinct basal tubercles and with striae 2-6 diminish apically. *D. erwini* sp. n. differs from *D. ogloblini* (Kult, 1950) by different colour; by head with transverse clypeal furrow and by elytra broader, with DSP: 0/0-1; from *D. neoteutonus* (Fedorenko, 1991) mainly by much larger body (length 3.80-4,50 mm versus 3.10-3.30 mm) and by elytra with DSP: 0/0-1, with indistinct basal tubercles and finally from *D. minarum* (Putzeys, 1866) by head with much finer, transverse clypeal furrow; by pronotum with finely punctate anterior transverse impression and by elytra with DSP: 0/0-1, without basal tubercles, with striae 2-6 strongly diminished in apical half (versus striae deep up to apex and intervals strongly vaulted apically).

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**Remark.** All specimens of type series were formerly glued on two common labels together with 18 specimens of *D. pampicola* (Putzeys, 1866), each with an additional label: either ADP 109097 or ADP 109099.

Name derivation. Patronymic, in honor of Terry L. Erwin, Washington, USA.

## Dyschiriodes (Eudyschirius) clorinda sp. n. (Fig. 3)

**Type material.** Holotype ( $\bigcirc$ ) labelled: "ARGENTINA: Formosa/ 50 km NW Clorinda/ P.N. Rio Pilcomayo/ 19.xii.1990, S. & J. Peck (leg.) / march edge u.v.90-122, (CNMC). Paratype. 1 ( $\bigcirc$ ) with the same data as HT, (PBPC).

**Description.** Habitus as in Fig. 3; length of HT and PT 2.35 mm. Both specimens slightly immature, with slightly translucent pronotum; rusty brown-red, surface without metallic lustre; elytra yellowish on basal slope and on large latero-apical area; legs yellowish-red, antennae and mouth-parts yellowish.

Head. Anterior margin of clypeus between very slightly protruded lateral lobes slightly, regularly emarginated, clypeofrontal suture missing; frons in level of anterior margin of eyes with slightly distinct and blunt ridge and superficial groove just below it; facial furrows deep, closest in second third of its length, slightly diverged anteriorly and moderately posteriorly; distance between them distinctly narrower than eyes length. Surface even, smooth, with very fine and sparse micropunctures. Eyes big, slightly flattened, not hemispherical. Antennae with antennomeres 6-10 slightly transverse.

Pronotum. Strongly vaulted laterally, outline subparallel, very slightly (HT) to slightly (PT) convex between lateral setiferous punctures; by HT 0.83, by PT 0.84 times as wide as long; by HT 1.13, by PT 1.16 times as wide as head; widest in second third. Anterior angles very blunt, rounded, posterior ones very broadly rounded. Anterior transverse impression missing; median line deep in extremities, slightly finer on disk; lateral channel and reflexed lateral margin very short, extended slightly beyond posterior setiferous puncture, latter very

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close to anterior angles. Surface mirror-like shiny, with very fine micropunctures.

Elytra. Strongly vaulted, very long and parallel, by HT and PT 2.13 times as long as wide and 1.24 times as wide as pronotum; base almost truncate; outline in basal fifth faintly broadened on sides, between second and fourth fifth parallel, broadest far before middle, moderately attenuated towards apex, slightly towards protruded humeri with distinct humeral tooth; suture not depressed at base. Base with vestigial basal border, moved deeply below level of large BSP; without basal tubercles. Stria 1 very deep and impunctate in apical three fifths, strongly weakened and roughly punctured basally, not connected with BSP; striae 2-4 fine and irregularly impressed around midlength; first striae roughly, lateral ones (especially 6-7) moderately punctured in basal half, interval 5 in anterior half distinctly narrower than width of punctures; punctation distinctly finer apically, latero-apical part almost smooth; stria 8 created from about 3-5 moderately rough punctures in about middle. Intervals slightly vaulted in basal two thirds, flattened latero-apically. PHSP: 2, DSP: 0, ASP: 2 (large punctures in very deep apical stria).

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Protibia. Distinctly broadened ventrally; apical spine very short and broad, curved backwards, much shorter and stouter than apical spur; latter distinctly curved apically; distal marginal tooth moderately big, blunt, proximal one indistinct.

Mesothorax. Peduncle with narrow, transverse, vertical slot.

**Differential diagnosis.** *D. clorinda* sp. n. is very characteristic by body shape, by colour and by form of protibiae; it has no similar species. According to many characters described above *D. clorinda* sp. n. belongs to the *D. pampicola* group or to a new, related group. It could be easily distinguished from all to date known species of this group by very narrow, cylindrical body (elytral ratio 2.13 versus 1.45-1.90 in remaining species; pronotal width/length ratio 0.83-0.84 versus 0.90-1.17); by distinctly lighter, rusty yellow-brown colour and by more dilatated protibia from ventral view.

Name derivation. Specific epithet derives from the place of finding.

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## NEW FINDINGS AND COMMENTS TO SPECIES OF THE D. PAMPICOLA GROUP

To date species of this group have been known in very limited series. Bulirsch (2006) listed all data known at that time. Recently I have determined large material belonging to USNM; CNMC, ISNB and PBPC; these specimens are quoted below and taxonomical comments are given by some species. The species are numbered as in Bulirsch (2006) to complete "List of species of *D. pampicola* group" presented there.

#### 1. Dyschiriodes (Eudyschirius) pampicola (Putzeys, 1866)

New material examined: "S(antia)go del Estero/ Añatuya/ IV.(1)963 Kohler// ARGEN-TINA/1968 Colln/ J Daguerre", 18 spec., (USNM, PBPC); 3 single specimens labelled: "Cordoba/Obispo trejo/XI.(1)962 Kohler//ARGENTINA/1968 Colln/J Daguerre"; "Salta/

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J.V.Gonzales/ I.(1)959. P. Dor// ARGENTINA/1968 Colln/ J Daguerre// ADP 109105"; "Salta/ Desmante/ XII.(1)950 Daguerre// ARGENTINA/1968 Colln/ J Daguerre// ADP 109107", (all USNM, PBPC); "ARGENTINA: Formosa/ 50km NW Clorinda/ P.N. Rio Pilcomayo/ 19.xii.1990, S.&J.Peck(leg.)/ march edge u.v.90-122", 2 spec., (CNMC, PBPC); "PARAGUAY/ Rio Confuca/ Sto Clara/ 18-i-1937// R.Mus.Hist.Nat./ Belg. I.G. 14.406, 2 spec., (ISNB, PBPC); "PARAGUAY// R.Mus.Hist.Nat./ Belg. I.G. 14.406", 3 spec., (ISNB); "1-Argentinien, Prov. Cordoba/ Salinas Grandes, rta 60, km/ 895,5 03.03.2008, S29°51'01.7"/ W64°40'10.4" Berger-Dostal (leg.)", 9 spec., (ADVA, PBPC).

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## 6. Dyschiriodes (Eudyschirius) minarum (Putzeys, 1866)

**Type material examined:** Holotype labelled: "D. minarum/ Min. Geraes, C. Chd.// Soc. Ent. Belg.// Coll. Putzeys// Type", (ISNB).

## 7. Dyschiriodes (Eudyschirius) bryanti (Kult, 1950)

New material examined: 7 single specimens labelled: "ARG(ENTINA) Salta/ Embarcacion/ Feb. 1922/ Harrington// ADP109103"; "Faz. Ric. Franco/ 19.iii.1961// BRASIL, MT/ J & B Bechyně// ADP 108807"; "BRAZIL:/ Mato Grosso/ Jacare, P. N./ Xingu, at light/ M. Alvarenga// ADP 108809, (all in USNM); "ARGENTINA/ Tartegal// May 1920, GL/ Harrington//ADP 109109"; "PARAGUAY/ Paraguari prov./ 5km W of LA Colmena/ 21.ii.2008/ J. Halada leg."; "PARAGUAY 16.ii.2008/ Caaguazo prov./ 25 km SE J.R.Chavez/ J. Halada leg., (all in PBPC); "PARAGUAY/ Rio Confuca/ Sto Clara/ 18-i-1937// R.Mus. Hist.Nat./ Belg. I.G. 14.406", (ISNB).

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## 8. Dyschiriodes (Eudyschirius) peruanus (Fedorenko, 1991)

**New material examined:** "PERU Madre de Dios/ Rio Tambopata Res./ 30 km (air) sw Pto./ Maldonato 290 m/ 12°50'S, 69°20'W// B.M.1983-455/ N.E.Stok/ 3.x.-15.xi.1983/ riverbach// ADP 108801, 108797", 1  $\stackrel{>}{\circ}$ , 1  $\stackrel{\bigcirc}{\circ}$ , (USNM, PBPC); 2 single specimens labelled "PERU Madre de Dios, Rio/ Manu, BIOLAT Bio. Sta./ Pakitza, 356 m 17 July 1992/ 11°56'47' S, 71°17'W// T. L. Erwin, E. & F. Pfuno// port on bare sandy silt/ moist Lot 459// Biolat/Cole// 017615"; "PERU Madre de Dios/ Pakitza nr. Port/ 26&27 Feb (19)90, T. L. Erwin / 12°07'S, 70°58'W// In wet leaf litter/ on muddy bank of Rio Manuat flood/ stage 7.5 m// Biolat/ Cole// ADP 000017569"; "BOLIVIA: El Beni/ Beni Stn., Palm/ Camp, NE of San/ Borja, 31 July 1988// Robert W. Brooks/ ex., streamside/ BIOLAT-SI'MAB// ADP 108800", 1  $\stackrel{>}{\circ}$ , (USNM).

**Comments.** New to Bolivia. To date, *D. peruanus* has only been known in two type specimens from Peru. As Fedorenko (1991, 1999) noted in (re)description, this species is very characteristic (not only within *D. pampicola* group) by unique appearance of striae 2-6: very deep and very coarsely punctate in basal two fifth, even deeper, but not punctate in third fifth and then abruptly disappearing apically. Four Peruvian specimens have identical striae

and single Bolivian specimen has striae only slightly finer and both males (one Peruvian and one Bolivian) have median lobe of aedeagus identical with type. On the other hand, two characters quoted in original description (missing elytral basal border and tubercles; very fine, in middle interrupted anterior transverse impression on pronotum) seem to be instable. Whereas one Peruvian specimen is fully in line with types, remaining four specimens have vestigial, more or less distinct basal border with vestigial rests of tubercles and slightly deeper anterior transverse impression.

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## 12. Dyschiriodes (Eudyschirius) selvas Fedorenko, 1999

New material examined. 6 specimens labelled: "PERU: Madre de Dios, Rio/ Manu, BIOLAT Bio. Sta./ Pakitza, 356 m 18 July 1992/ 11°56'47''S, 71°17'W// T. L. Erwin, E. & F. Pfuno// PERU: Madre de Dios, Rio/ Manu, BIOLAT Bio. Sta./ Pakitza, 356 m 18 July 1992/ 11°56'47''S, 71°17'W// T. L. Erwin, E. & F. Pfuno// Cocha Chica treading drv and/ greren grass stems and thick/ layer of mud at margin of lagoon and to 5m back where/ soil was dryer lot 462// Biolat/Cole"; 3 specimens labelled: "PERU: Madre de Dios, Rio/ Manu, BIOLAT Bio. Sta./ Pakitza, 356 m 17 July 1992/ 11°56'47''S, 71°17'W// T. L. Erwin, E. & F. Pfuno// Que. Pachija splashing sand/ and quacking sandy mud/ Lot 460c or Que. Pachija in leaf litter/ in Tessaria grove Lot 460a// Biolat/ Cole"; 4 specimens labelled: "PERU: Madre de Dios, Rio/ Manu, BIOLAT Bio. Sta./ Pakitza, 356 m 14 July 1992/ 11°56'47''S, 71°17'W// T. L. Erwin, E. & F. Pfuno// Que. Pachija splashing sand/ and quacking sandy mud/ Lot 460c or Que. Pachija, sandy and stony / margin of stream Lot 450 or Cocha Chica trading thick/ muddy margins with dry/ and green grass stems (Paspalum)/ Lot 449a or Coch Chica quaking thick/ layer of mud at margin of/ lagoon Lot 449b// Biolat/Cole"; 4 specimens labelled: "PERU: Madre de Dios/ Rio Manu, BIOLAT Bio. Sta./ Pakitza, 356 m 22 June 1993/ 11°56'47''S, 71°17'00''W// T. L. Erwin & F. Pfuno// At willow bar among herbs and/ grasses at edge of ponds formede by/ drying of canal; treating mud and/ beating down the grasses Lot 496// Biolat/Cole"; 1 specimen labelled: "PERU: Madre de Dios/ Rio Manu, BIOLAT Bio. Sta./ Pakitza, 356 m 28 June 1993/ 11°56'47''S, 71°17'00''W// T. L. Erwin & F. Pfuno// On sandy beach of Rio Manu in/ front of willow bar Lot 529// Biolat/Cole"; 11 specimens labelled: "PERU: Madre de Dios/ Rio Manu, BIOLAT Bio. Sta. Port/ below Pakitza, 345 m, 18 Sep 1991/ 11°56'47''S, 71°17'00''W// T. L. Erwin// Treading on bare sand/ Lot 85// Biolat/Cole"; 1 specimen labelled: "PERU: Madre de Dios/ Pakitza, Port/ 03 Sep (19)89, T. L. Erwin// 12°07'S, 70°28'W// Treading and/ quaking playa fine/ silt/ sand// Biolat/Cole"; 1 specimen labelled: "PERU: Madre de Dios/ Pakitza, Port/ 12 Sep (19)89, T. L. Erwin// 12°07'S, 70°28'W// Treading and/ quaking playa fine/ silt/sand// Biolat/ Cole"; 5 specimens labelled: "PERU: Loreto Rio/ Samiria, Playa Cmp/ 140m, 18 Aug 1991/ 05°13'S, 74°59'W// On slopes of clay &/ sandy beach intrface/ late pm and night/ Lot 20 T. L. Erwin"; 2 specimens labelled: "PERU Madre de Dios/ Rio Tambopata Res./ 30 km (air) sw Pto./ Maldonato 290 m/ 12°50'S, 69°20'W// B.M.1983-455/ N.E.Stok/ 3.x.-15. xi.1983/riverbach"; 3 specimen labelled: "PERU: Loreto, Cocha/ Shinguito 16 June (19)90/ 74°45'W, 05°08'S/ Erwin et al Colls/ At light on Launch/ at dusk"; 1 specimens labelled: "PERU: Loreto Rio Napo/ Explomapo Camp, Yarina Cocha/ 100 m, 20 June 1992/ 03°15'S, 072°55'W/ T. L. Erwin, E. & F. Pfuno S.// About 10km NW boca Sucusari/ open grassy

march 150m dia./ floods when Rio Napo crests/ open sunny areas treading and/ quaking Lot 403a"; 2 specimens labelled: "PERU: Dpto.Loreto/ Rio Samiria/ Cocha Shinguito/ river, clay beach/ 26.viii.1991, 22-91/ T.L. Erwin Peru Exp./ Res. Pacaya-Samiria/ G.E.Ball & D. Shpeley/ Collectors, 1991// // On slopes of clay &/ sandy beach intrface/ late pm and night/ Lot 20 T. L. Erwin"; 1 specimen labelled: "PERU: Loreto 1km SW/ Boca del Rio Samiria/ Vigilante Post No. 1/130 m, 1 Sep 1991/04°40.5'S, 74°18.9'W// At night treading/ lowest part of marsch/ in weat leaf-cowered/ mud, Lot 81, TL Erwin" (USNM, PBPC).

Comments. New to Peru. Species described based on a single male from Brazil; Bulirsch (2006) quoted next 2 specimens from Brazil and Bolivia. The above listed 45 specimens form the largest published series of the Neotropical Dyschiriini.

## 15. Dyschiriodes (Eudyschirius) erwini sp. n.

(Figs 2, 2a,b)

# 16. Dyschiriodes (Eudyschirius) clorinda sp. n.

(Fig. 3)

ACKNOWLEDGEMENTS. My hearty thanks are due to Terry L. Erwin (USNM, Washington D.C., U.S.A.), to François Génier (CNMC, Ottawa, Canada), to Alexander Dostal (Vienna, Austria) and to Alain Drummont (ISNB, Brussels, Belgium) for loan of material and/or for donation of some doublets. I am also thankful to Pavel Moravec (Litoměřice, CZ) and Martin Fikáček (Praha, CZ) for providing the figures.

## REFERENCES

- BOUSQUET Y. 1988: Dyschirius of America north of Mexico: Descriptions of new species with keys to species groups and species (Coleoptera: Carabidae). The Canadian Entomologist 120: 361-387.
- BULIRSCH P. 2006: Four new species of the genus Dyschiriodes from South America and notes about next species from the same region (Coleoptera: Carabidae: Scaritinae). Studies and Reports of District Museum Prague-East. Taxonomical Series 2: 1-14.
- FEDORENKO D. N. 1991a: [New species of the genus Dyschirius Bon. (Coleoptera, Carabidae) from South America]. Zoologicheskiy Zhurnal 70 (7): 138-140 [in Russian].
- FEDORENKO D. N. 1991b: [Two new species of Dyschiriini (Coleoptera, Carabidae) from Africa and South America]. Zoologicheskiy Zhurnal 70 (10): 144-147 [in Russian].

FEDORENKO D. N. 1996: Reclassification of world Dyschiriini, with a revision of the Palearctic fauna (Coleoptera, Carabidae). Sofia-Moscow-St. Petersburg: Pensoft publishers, 224 pp.

FEDORENKO D. N. 1999: Description of three new species of the genus Dyschiriodes Jeannel, 1941, from South America, with a review of the pampicola-group (Coleoptera, Carabidae, Dyschiriini), pp.139-152. In:

ZAMOTAILOV A. & SCIAKY R.: Advances in Carabidology (Papers Dedicated to the Memory of Prof. Dr.Oleg L. Kryzhanovskij). Krasnodar: MUISO Publishers, 473 pp.

KULT K. 1950: New Neotropical species of group Clivinina. Časopis Československé Společnosti Entomologické 47: 129-149.

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PUTZEYS J. 1866. Révision générale des Clivinides. Annales de la Societé Entomologique de Belgique 10: 1-242.

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