

**SYNONYMICAL NOTES ON NORTH AMERICAN PLATYNINI
(COLEOPTERA: CARABIDAE), WITH SPECIAL
REFERENCE TO NAMES PROPOSED BY T. L. CASEY,
AND A REDESCRIPTION OF *AGONUM IMITANS* NOTMAN**

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Abstract. — Fifteen species names proposed by T. L. Casey, previously considered valid names of North American *Agonum*, are newly synonymized. The synonymical status of 11 additional species names heretofore considered valid species names of *Agonum* are also reviewed. Twenty-seven new lectotypes are designated. *Olisares* Motschulsky, 1864, is newly synonymized with *Agonum* Bonelli, 1810. *Agonum imitans* Notman, a putative member of the North American fauna, is diagnosed and redescribed.

T. L. Casey (1920, 1924) proposed many species of Platynini now considered invalid. In his treatment of the Canadian and Alaskan carabid fauna, Lindroth (1966, 1975) established the current synonymical status of most such names. Over the past several years I have studied several groups of North American Platynini, and have evaluated many Casey names not included in Lindroth's monograph (Liebherr, 1984, 1985, 1986, 1991). In this paper, I present synonymical notes on the 32 names proposed by Casey that were treated as valid members of *Agonum* in the checklist of Erwin et al. (1977). Lectotypes are designated for 19 of these, and 15 are newly recognized as junior synonyms. Study of type specimens of Chaudoir (1837), Motschulsky (1850, 1864), Bates (1884), Horn (1892), and Notman (1919) has revealed additional unrecognized junior synonyms listed as valid species under the genus *Agonum* in Erwin et al. (1977). The second portion of these notes reports additions and corrections to North American *Agonum* synonymy relative to these names.

Examination of the holotype of *Platynus imitans* Notman (1919) indicates that this species is distinct from all other North American species, and should be placed in the genus and subgenus *Agonum*, sensu Liebherr (1986:177). Notman (1919:233) specified the type locality only as North America, and the geographic origin of the single known specimen has remained in doubt. The species is distinct from all *Agonum* species in Europe (Freude et al., 1976; Jeannel, 1942; Lindroth, 1974, 1986), Japan (Habu, 1978), and South America (unpubl. data). The holotype is redescribed to facilitate recognition of the species, and eventual determination of its geographic provenance.

Based on the new synonymical data presented here, all known species of *Agonum*, sensu Liebherr (1986:177), from North America north of Mexico can now be reliably identified. Lindroth's (1966) key, as modified by Lindroth (1969:1119), Liebherr (1984), and the addition of *Agonum imitans* below, can be used for all species except for those of the *A. extensicolle* group. Liebherr (1986) treats the 7 species of the *A. extensicolle* group.

SYNONYMY OF CASEY NAMES

All Casey specimens listed below are part of the T. L. Casey Collection, deposited in the National Museum of Natural History, Washington, D.C. Species are listed in alphabetical order as presented in Erwin et al. (1977). For each name, a prior lectotype designation is cited, or a new lectotype designation is made. Type localities are given for newly recognized synonyms and for lectotypes. Where original type locality designations are vague, they are restricted to sites from which I have examined specimens. Casey sometimes labeled his specimens with abbreviated state names, e.g., "Cal.", augmented with symbols such as "+", "x", or ".". These symbols, and their positions relative to the letters on the label were keyed to the exact locality within the state; that locality listed as the type locality in his Memoir publications. Therefore, I have listed verbatim label data along with the type locality published by Casey (1920, 1924). All Casey specimens have a "Casey bequest 1925" label above the "Type USNM" label. I have not listed this label in the data below.

Anchomenus amplicollis Casey, 1924:82 = *Agonum fallianum* Leng, 1918 (NEW SYNONYMY); lectotype male hereby designated; type locality Berkeley, CA. Label data: Berkeley, Cal; Jan 17, 1919; Type USNM 47436; Lectotype, *Anchomenus amplicollis* Casey, J. K. Liebherr 1990.

Agonum angustior Casey, 1920:101 = *Tanystoma maculicolle* Dejean, 1828 (see Liebherr, 1985); lectotype male hereby designated; type locality Hoopa Valley, Humboldt Co., CA. Label data: Cal (a with dot above); ♂; Type USNM 47472; Lectotype, *Agonum angustior* Casey, J. K. Liebherr 1990.

Anchomenus collisus Casey, 1920:59 = *Agonum elongatum* Dejean, 1828 (see Liebherr, 1986); lectotype male hereby designated; type locality Marion Co., FL. Label data: Marion County; Fla; Type USNM 47434; Lectotype, *Anchomenus collisus* Casey, J. K. Liebherr 1990.

Anchomenus concurrens Casey, 1920:49 = *Anchomenus funebris* LeConte, 1854 (see Hatch, 1953); lectotype female hereby designated; type locality Santa Rosa, CA hereby designated. Label data: Cal.; Type USNM 47421; *concurrans* Casey; Lectotype, *Anchomenus concurrens* Casey, J. K. Liebherr 1990.

Note: *Anchomenus Bonelli* is a valid genus with type species *Anchomenus dorsalis* Pontoppidan. It comprises 10 species of collective Holarctic distribution, with 4 found in the Pacific states, western Canada, and Baja California (Liebherr, 1991).

Anchomenus cornicula Casey, 1920:51 = *Anchomenus quadratus* LeConte, 1854 (NEW SYNONYMY); lectotype male hereby designated; type locality Hoopa Valley, Humboldt Co., CA. Label data: Cal (a with dot above); ♂; Type USNM 47423; Lectotype, *Anchomenus cornicula* Casey, J. K. Liebherr 1990.

Anchomenus dissensus Casey, 1920:67 = *Agonum piceolum* LeConte, 1879; lectotype female designated by Lindroth (1975).

Agonum fidele Casey, 1920:116, a valid species (see Lindroth, 1966); lectotype male designated by Lindroth (1975).

Europhilus galvestonicus Casey, 1920:126, a valid species (see Lindroth, 1966); holotype male.

Anchomenus gravidulus Casey, 1920:59 = *Agonum elongatum* Dejean, 1828 (see

- Liebherr, 1986); lectotype female hereby designated; type locality Indian River Haulover, FL. Label data: Haulover, 14 March, Fla: Type USNM 47435; gravidulus Csy; Lectotype, *Anchomenus gravidulus* Casey, J. K. Liebherr 1990.
- Anchomenus impictus* Casey, 1920:60 = *Agonum decorum* Say, 1823 (see Liebherr, 1986); lectotype male hereby designated; type locality San Joaquin Co., CA. Label data: San Joaquin Co., CAL; Type USNM 47438; impictus Csy.; Lectotype, *Anchomenus impictus* Casey, J. K. Liebherr 1990.
- Anchomenus luxatus* Casey, 1920:67 = *Agonum decorum* Say, 1823 (see Liebherr, 1986); lectotype male designated by Lindroth (1975).
- Agonum maculicolle guadalupense* Casey, 1920:100 = *Tanystoma maculicolle* Dejean, 1828 (see Liebherr, 1985); lectotype male hereby designated; type locality Guadalupe Island, Baja CA Norte. Label data: Guad. Id.; Type USNM 47471, guadalupense Csy.; Lectotype, *Agonum maculicolle guadalupense* Casey, J. K. Liebherr 1990.
- Micragonum maritimum* Casey, 1920:85 = *Agonum crenulatum* LeConte, 1854 (NEW SYNONYMY); lectotype female hereby designated; type locality Galveston, TX. Label data: Tex (x with dot below); ♀; Type USNM 47496; Lectotype *Micragonum maritimum* Casey, J. K. Liebherr 1990.
- Anchomenus morbillosus* Casey, 1920:48 = *Anchomenus funebris* LeConte, 1854 (NEW SYNONYMY); lectotype female hereby designated; type locality Redwood Creek, Humboldt Co., CA. Label data: Cal. (a with + above); Type USNM 47419; morbillosus Csy.; Lectotype, *Anchomenus morbillosus* Casey, J. K. Liebherr 1990.
- Anchomenus nevadensis* Casey, 1920:48 = *Anchomenus funebris* LeConte, 1854 (NEW SYNONYMY); lectotype female hereby designated; type locality Reno, NV. Label data: Nev (N with dot preceding); ♀; Type USNM 47420; Lectotype, *Anchomenus nevadensis* Casey, J. K. Liebherr 1990.
- Anchomenus opacellus* Casey, 1920:50 = *Anchomenus funebris* LeConte, 1854 (NEW SYNONYMY); lectotype female hereby designated; type locality Santa Rosa, CA. Label data: Cal (a with dot beneath); Type USNM 47422; Lectotype *Anchomenus opacellus* Casey, J. K. Liebherr 1990.
- Agonum pacificum* Casey, 1920:102, a valid species; lectotype male designated by Liebherr (1984).
- Anchomenus parvus* Casey, 1920:51 = *Anchomenus funebris* LeConte, 1854 (NEW SYNONYMY); holotype female; type locality Reno, NV.
- Micragonum pinorum* Casey, 1920:86 = *Agonum crenulatum* Leconte, 1854; lectotype male designated by Lindroth (1975).
- Anchus puncticeps* Casey, 1920:2 = *Oxypselaphus pusillus* LeConte, 1854, a valid species; lectotype female designated by Lindroth (1975).

Note: *Oxypselaphus* Chaudoir, 1843, is a senior synonym of *Anchus* LeConte, 1854, with type species *O. obscurus* Herbst, 1784 (= *O. pallidulus* Chaudoir, 1843). Lindroth (1966) replaced the specific name *pusillus* LeConte with *puncticeps* Casey due to secondary homonymy in his taxonomically broad concept of *Agonum*. As I consider *Oxypselaphus* generically distinct from *Agonum*, the senior specific name is valid.

Anchomenus renoanus Casey, 1920:51 = *Anchomenus funebris* LeConte, 1854 (NEW SYNONYMY); lectotype male hereby designated; type locality Reno, NV. Label

data: Nev (N with dot preceding); Type USNM 47425; Lectotype, *Anchomenus renoanus* Casey, J. K. Liebherr 1990.

Circinalia rigidula Casey, 1920:75 = *Agonum rigidulum* Casey, a valid species (see Lindroth, 1966); lectotype male designated by Lindroth (1975).

Anchomenus rugulifer Casey, 1920:33 = *Platynus ovipennis* Mannerheim, 1843 (NEW SYNONYMY); holotype female; type locality Redwood Creek, Humboldt Co., CA.

Note: The single female is teneral. Casey diagnosed this species by color, coarse wrinkles on the dorsum, and flat elytral intervals; all traits often observed in teneral carabids.

Agonum sierranum sequoiarum Casey, 1920:105 = *Agonum subsericeum* LeConte, 1863 (NEW SYNONYMY); holotype female; type locality Redwood Creek, Humboldt Co., CA.

Agonum sierranum Casey, 1920:105 = *Agonum subsericeum* LeConte, 1863 (NEW SYNONYMY); lectotype female hereby designated; type locality Truckee, CA. Label data: Cal. (l crossed with slash); Type USNM 47458; sierranum Csy.; Lectotype, *Agonum sierranum* Casey, J. K. Liebherr 1990.

Anchomenus solutus Casey, 1920:60 = *Agonum decorum* Say, 1823 (see Liebherr, 1986); holotype female.

Agonum sybariticum Casey, 1920:107 = *Agonum subsericeum* LeConte, 1863 (NEW SYNONYMY); lectotype female hereby designated; type locality southern California, hereby restricted to Lake Henshaw, San Diego Co., CA. Label data: Cal (underlined); Type USNM 47462; Lectotype, *Agonum sybariticum* Casey; J. K. Liebherr 1990.

Agonum tahoense Casey, 1920:106 = *Agonum cupripenne* Say, 1823 (NEW SYNONYMY); lectotype female hereby designated; type locality Truckee, CA. Label data: Cal. (l crossed with slash); Type USNM 47460; tahoense Csy.; Lectotype, *Agonum tahoense* Casey, J. K. Liebherr 1990.

Anchomenus tersus Casey, 1920:35 = *Platynus ovipennis* Mannerheim, 1843 (NEW SYNONYMY); lectotype male hereby designated; type locality Redwood Creek, Humboldt Co., CA. Label data: Cal. (a with "x" above); Type USNM 47409; tersus Csy.; Lectotype, *Anchomenus tersus* Casey, J. K. Liebherr 1990.

Agonum uintanum Casey, 1924:83 = *Agonum cupreum* Dejean, 1831 (NEW SYNONYMY); lectotype male designated by Lindroth (1975); type locality Mammoth, Parowan Mts., UT.

Note: Lindroth (1975:128) stated *A. uintanum* was "probably a subspecies of *cupreum* Dej."

Anchomenus uteanus Casey, 1924:81 = *Agonum decorum* Say, 1823 (see Liebherr, 1986); lectotype male hereby designated; type locality Callao, UT. Label data: Callao, Juab Co., Ut, VI-29-22, Tom Spaldi; Type USNM 47433; uteanus Csy.; Lectotype, *Anchomenus uteanus* Casey, J. K. Liebherr 1990.

Anchomenus vinnulus Casey, 1920:61 = *Agonum decorum* Say, 1823 (see Liebherr, 1986); lectotype male hereby designated; type locality Battle Mountains, NV. Label

data: Battle Mtn., Nevada; Type USNM 47440; vinnulum Csy.; Lectotype, *Anchomenus vinnulus* Casey, J. K. Liebherr 1990.

SYNONYMY OF NON-CASEY NAMES

Institutional codes indicate type deposition. The acknowledgments provide complete institutional names. Vague or broadly given type localities are restricted to sites from which I have examined specimens.

Agonum alcyoneum Chaudoir, 1837:24 = *Agonum placidum* Say, 1823 (NEW SYNONYMY). Lectotype male hereby designated (MNHP); type locality Mexico, hereby restricted to Amecameca, Mexico state. Label data: 168; Lectotype (purple border); Lectotype, *Agonum alcyoneum* Chaud., George E. Ball 1972.

Anchomenus xanthocnemis Bates, 1884:281 = *Agonum propinquum* Gemminger and Harold, 1868 (NEW SYNONYMY). Holotype female (BMNH); type locality Mexico state, Mexico. Label data: Type, H.T. (red circle); Mexico, Salle Coll.; B.C.A. Col. I., 1; *Anchomenus xanthocnemis* Bates.

Note: *A. propinquum* is reported to have a distribution that is "Transamerican, S at least to New Jersey and Oreg" (Lindroth, 1966:612). I have collected this species in wet pastures in Plumas Co., CA. Although the species as now circumscribed possesses a range containing a 3,100 km disjunction, I have no doubts concerning the identity of the Mexican specimen. As the wet pasture habitat in montane California appears similar to wet habitats in Mexico state, we should expect further collections of this species to be made in wet pasture areas in the intervening regions.

Agonothorax planipennis Motschulsky, 1850:68 (NOMEN DUBIUM). Type apparently lost; type locality Sitka, AK.

Note: This name is not included in Keleinikova's (1976) list of Motschulsky types held at the Moscow State University Collection, suggesting that the type is lost. Motschulsky's (1850:68) terse description may be translated "Like *A. famelicus*, but is somewhat smaller and flatter. The elytra are more weakly striate and with a more metallic reflection." *A. famelicus* Ménétries is a junior synonym of *A. fossigerum* Dejean (see Lindroth, 1966). As the elytral striae, intervals, and metallic reflection vary in *A. fossigerum*, with males often smaller and shinier, Motschulsky's description would be most appropriately attributed to this species. Nonetheless, it is not uncommon for Motschulsky to have mixed widely divergent species-level taxa in his genera, and so I refrain from proposing a formal synonymy. Horn (1892) noted the similarity of Motschulsky's *planipennis* to *Agonum fossigerum*, though he also refrained from formally proposing synonymy of the two names. *A. fossigerum* is distributed from California and western Nevada north to Washington state and southern Alberta, suggesting that Motschulsky's type locality may be in error.

Limodromus acuticollis Motschulsky, 1864:319 = *Platynus tenuicollis* LeConte, 1848 (NEW SYNONYMY). Lectotype male (MSUM) hereby designated; type locality southern states of North America, hereby restricted to Washington, D.C. Label

data: [small pale green square]; sp. Ubia; *Limodromus acuticollis* Motsch., Amer. bor. [green label]; Lectotype, *Limodromus acuticollis* Motschulsky, J. K. Liebherr 1990.

Note: Keleinikova (1976) lists this single syntype in the Motschulsky collection.

Europhilus iridipennis Motschulsky, 1864:321 = *Badister flavipes* LeConte, 1853:388 (NEW SYNONYMY). Lectotype female (MSUM) hereby designated; type locality New Orleans, LA. Label data: [small red square]; [larger green circle]; *Agonothorax iridipennis* Motsch., Am. bor. N. Orl [green label]; Lectotype, *Europhilus iridipennis* Motschulsky, J. K. Liebherr, 1990.

Note: This name is not included in Keleinikova's (1976) list of Motschulsky types, however N. Nikitsky has sent me a specimen matching the description.

Platynus pterostichoides Bates, 1882 = *Tanystola tropica* Motschulsky, 1864:324 (NEW SYNONYMY). Lectotype male (MSUM) hereby designated; type locality Nicaragua. Label data: Nicaragua (green label); *Tanystola tropica* Motsch., Nicaragua; red label; Lectotype, *Tanystola tropica* Motschulsky, J. K. Liebherr 1990.

Note: Keleinikova (1976) mentions this single syntype. Motschulsky's specimen keys to *P. pterostichoides* in Whitehead (1973), and thus the valid combination for this species is *Platynus tropicus* Motschulsky. I join these two names in synonymy at this time to ensure the proper comparison of their respective types when the species group they belong to is revised.

Olisares flavolimbatus Motschulsky, 1864:327 = *Agonum pallipes* F., 1787 (NEW SYNONYMY). Lectotype male (MSUM) hereby designated; type locality Mobile, AL. Label data: red square; green circle; *Olisares flavolimbatus* Motsch. (green square); red square; Lectotype, *Olisares flavolimbatus* Motsch., J. K. Liebherr 1989.

Note: In addition to the lectotype there is one female paralectotype labeled "Am. bor." The lectotype has dermestid damage to elytra and abdomen.

I hereby designate *O. flavolimbatus* Motschulsky as the type species of *Olisares* Motschulsky, 1864, making *Olisares* a junior subjective synonym of *Agonum* Bonelli, 1810 (NEW SYNONYMY).

Olisares picipes Motschulsky, 1864:326 = *Agonum punctiforme* Say, 1823 (NEW SYNONYMY). Lectotype male (MSUM) hereby designated; type locality Caracas, Venezuela. Label data: Caraccas (green label); *Olisares picipes* Motsch., Am. centr. (green label); red label; Lectotype, *Olisares picipes* Motsch., J. K. Liebherr 1990.

Note: The genitalia and abdominal terga of the lectotype are damaged, and the head is missing, but the specimen agrees with *A. punctiforme* in pronotal configuration, elytral striation, and sternite microsculpture. *A. punctiforme* is distributed from southern Ontario and Quebec south to Texas, California, and Mexico, suggesting that the Caracas locality record may have been the result of accidental introduction or mislabeling.

Platynus arizonensis Horn, 1892:42 = *Agonum cycliferum* Bates, 1884 (NEW SYNONYMY). Lectotype male (MCZ) hereby designated; type locality Camp Grant,

AZ. Label data: Ar; Lectotype 2889 (red label); *P. arizonensis* Horn; Lectotype, *Platynus arizonensis* Horn, J. K. Liebherr 1990.

Note: Lindroth (1966:562, 614) includes this species in his treatment of *Agonum*, using the junior name.

Platynus languidus Horn, 1892:42 = *Platynus ovatulus* Bates, 1884 (NEW SYNONYMY). Lectotype male (MCZ) hereby designated; type locality southern Arizona, hereby restricted to Cochise Stronghold, Dragoon Mtns., Cochise Co., AZ. Label data: Ari; Lectotype 2888 (red label); *P. languidus* Horn; Lectotype, *Platynus languidus* Horn, J. K. Liebherr 1990.

Note: Liebherr (1986:177) erroneously considered this species a member of the *Agonum nigriceps* species group. *Platynus ovatulus* is a member of the *P. ovatulus* species group, distributed in Mexico, Central America, and the Greater Antilles.

Platynus foveiceps Notman, 1919:233 = *Agonum fossigerum* Dejean, 1828 (NEW SYNONYMY). Holotype female (NMNH). Label data: Franktown, Nevada.

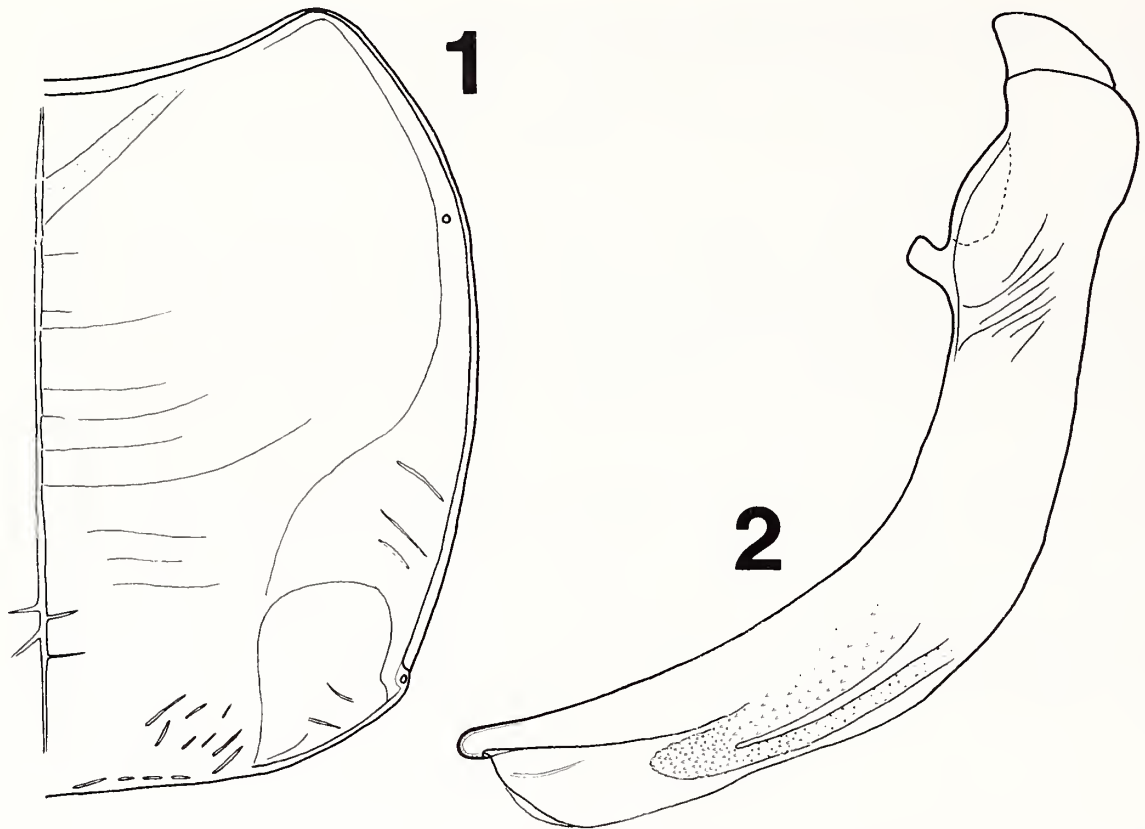
Agonum imitans (Notman)

Platynus imitans Notman, 1919:232.

Agonum (Agonum) imitans, Csiki, 1931:842.

Diagnosis. Third antennomere glabrous except for apical setae; head not impressed dorsally behind eyes; pronotum quadrate with broadly ovoid laterobasal depressions, laterobasal margin distinct inside evident hind angles (Fig. 1); elytral striae strongly punctate in basal half, smooth apically; elytra with three dorsal setae in third interval; elytral microsculpture of transverse lines intermittently joined into a transverse mesh; basal metatarsomeres with weak external and intermittent internal dorsal sulci; ungues with long ventral setae; body and leg color brunneous to piceous.

Description. Head moderately slender, eyes moderately convex. Mentum with broadly rounded unidentate median tooth, lateral depressions shallow. Basal 3 antennomeres glabrous except for apical setae; scape flavous to rufotestaceous, outer antennomeres with faint smoky cast. Pronotum quadrate with evident hind angles (Fig. 1); basal margin distinct inside basal setae; laterobasal depressions broad, ovoid, with strong isodiametric microsculpture in center; median base with weak longitudinal wrinkles, unmargined; median longitudinal impression fine; anterior transverse impressions shallow, broad, delimiting slightly depressed mediofrontal area of disc; front angles tightly rounded; lateral depressions of equal, moderate width from angle to slightly posterad lateral setae, then gradually widening to meet laterobasal depressions. Elytra with flattened disc; humeral angle very slightly angulate; elytral striae distinctly punctate basally, punctures becoming finer near middle of length, and absent in apical $\frac{1}{3}$; elytral intervals convex throughout length; 3 dorsal setae in third interval; 15 setae in eighth interval; elytral microsculpture of transverse lines intermittently joined in a transverse mesh, the surface faintly iridescent. Metepisternum elongate, flight wings with reflexed apex, apparently fully developed. Legs moderately robust; mesocoxae with 2 ridge setae; metacoxae trisetose, inner seta present; mesofemur with 3 anteroventral setae; basal metatarsomere flattened dorsally, with weak external sulcus and indistinct internal sulcus; third metatarsomere with well-



Figs. 1, 2. *Agonum imitans* holotype. 1. Right half of pronotum, dorsal view. 2. Aedeagal median lobe, dorsal view, retracted position.

developed internal and external sulci and a median keel; apical tarsomeres of all legs with 3 pairs of long ventral setae.

Length. 6.9 mm.

Male genitalia. Parameres basally melanistic, mottled brunneous to piceous apically. Aedeagal median lobe nearly straight apically, evenly curved basally (Fig. 2); apex bluntly rounded; sagittal crest well developed; surface of shaft mostly smooth, faint wrinkles near basal bulb. Aedeagal internal sac unarmed, only uniformly faint spicules covering surface.

Type. Holotype male (NMNH). Type locality designated by Notman (1919) as "North America, locality uncertain." Label data: Type No. 104255 USNM (red label); *Platynus imitans* Type (blue label); *Platynus rubripes* (handwritten label).

Lindroth's (1966) key to *Agonum* in his expanded sense may be modified as follows to accommodate *A. imitans*.

- 62. 6.5–8.2 mm. Prothorax with suggested hind angles (Fig. 1 [also Lindroth 1966:607, Fig. 306m]). Elytral with ± piceous ground-color at least apically, quite unmetallic although slightly iridescent due to microsculpture 62a
- 62'. Usually larger. Hind angles of prothorax almost lacking. Elytra black, almost constantly with metallic (often brilliant lustre) 63
- 62a. Elytral striae coarsely punctate in basal half, smooth apically. Elytral intervals convex, their microsculpture transverse mesh to rows of transverse lines .. *A. imitans*
- 62a'. Elytral striae with only traces of fine punctulae. Elytral intervals nearly flat, their microsculpture slightly transversely stretched isodiametric mesh *A. propinquum*

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