

**Extensions of Range for Some Seashore and Intertidal  
Beetles of Western North America  
(Coleoptera: Staphylinidae, Carabidae,  
Malachiidae & Rhizophagidae)**

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*Abstract.*—Geographical range extensions and biological notes are presented for the seashore and intertidal Coleoptera: Staphylinidae—*Cafius lithocarinus* LeConte, *C. luteipennis* Horn, *C. opacus* LeConte, *Hadrotus crassus* LeConte, *Diaulota harteri* Moore, *D. vandykei* Moore, *Briothinusa catalinae* Casey, *Salinamexus giuliani* Moore, *Aleochara arenaria* Casey; Malachiidae—*Endeodes blaisdelli* Moore; Carabidae—*Thalassotrechus barbarae* (Horn); Rhizophagidae—*Phyconomus marinus* (LeConte).

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The marine insect fauna of the Pacific Coast of North America is a distinctive and interesting assemblage. Recent reviews of the coleopteran elements of this fauna (Moore and Legner *in* Cheng, 1976) have suggested that species may be 1) widespread, with geographic ranges extending from Alaska to Baja California or 2) limited, with range extremes at Point Conception, California and/or Monterey Bay, California. These patterns of distribution are shown by the "wide ranging" species *Cafius luteipennis* LeConte, *C. lithocarinus* LeConte and *Hadrotus crassus* LeConte and the "limited ranging" species (south of Point Conception) *Diaulota harteri* Moore, *Briothinusa catalinae* Casey, *Cafius opacus* LeConte and *Endeodes blaisdelli* Moore. A northern extension of the range of the "limited range" species *Diaulota vandykei* Moore to Bear Harbor, Mendocino Co., California, some 300 miles north and across the Monterey Bay area, seemingly challenges the theory that Monterey Bay has been a barrier area, although it is possible that *D. vandykei* is a "wide ranging" species that has not been collected throughout its full range.

Additional collections from the rarely collected intertidal habitat are necessary to determine if there are areas along the coast that have acted as barriers to the distributional movement of intertidal Coleoptera.

NEW RECORDS

Staphylinidae

1. *Cafius lithocarinus* LeConte. Previously reported from British Columbia to the north end of Cedros Island, Baja California Norte, Mexico. New record, 61

<sup>1</sup> Deceased.

specimens, Tortugas Bay, Baja California Sur, Mexico, III-18-1981, migratory flight moving north, F. Andrews and D. Faulkner.

These specimens were collected as a part of a northward moving migratory flight (see Leech and Moore, 1971). This flight was over a broad sandy beach littered with numerous partially buried clumps of washed up kelp. The flight began about 9 AM when there were very few individuals in the air. The insects continually increased in numbers until approximately 11 AM when 10 to 12 random sweeps of an insect net would capture several hundred specimens. After this the flight rapidly diminished and by 12 noon was completed. The individuals were moving in a northerly direction with thousands being in the air at one moment followed by periods when only dozens were in the air.

2. *Cafius luteipennis* Horn. Previously reported from British Columbia to El Tomatal (near Miller's Landing), Baja California Norte, Mexico (Orth and Moore, 1980). New record, 1 specimen, Tortugas Bay, Baja California Sur, Mexico, III-18-1980, under kelp on rocky beach, F. Andrews and D. Faulkner.

3. *Cafius opacus* LeConte. Previously reported from Refugio State Beach, Santa Barbara Co., California to Socorro Dunes, Baja California Norte (Orth and Moore, 1980). New record, 1 specimen, 13.0 mi N El Rosario, Baja California Norte, Mexico, III-15-1981, under kelp on rocky beach, F. Andrews and D. Faulkner.

4. *Hadrotus crassus* LeConte. Previously reported from Alaska to Baja California (Moore and Legner, 1976). This is based on specimens collected by Ian Moore at Descanso Bay, Baja California Norte, Mexico. New record, 1 specimen, Tortugas Bay, Baja California Sur, Mexico, III-18-1981, under kelp on rocky beach, F. Andrews and D. Faulkner.

5. *Diaulota harteri* Moore. Previously reported from La Jolla Shores, San Diego Co., California to Descanso Bay, Baja California Norte, Mexico (Moore, 1956). New record, 2 specimens, Cedros Island, North Point, Baja California Norte, Mexico, III-20/21-1981, intertidal rock crevices, F. Andrews and D. Faulkner. This extends the known range about 300 miles south.

6. *Diaulota vandykei* Moore. Previously reported from Shell Beach, San Luis Obispo Co., California to Pacific Grove, Monterey Co., California. New record, 10 specimens, 1 mi NW New Albion, X-24-1980, intertidal rocks, D. Giuliani.

7. *Bryothinusa catalinae* Casey. Previously reported from White Point, Los Angeles Co., California (Moore and Orth, 1978) to La Jolla, San Diego Co., California (Moore, 1956). New record, 4 specimens, Cedros Island, North Point, Baja California Norte, Mexico, III-20/21-1981, intertidal rock crevices, F. Andrews and D. Faulkner. This extends the known range about 350 miles south.

8. *Salinamexus giulianii* Moore. Previously reported from La Push, Clallam Co., Washington (Moore, 1978). New record, 10 specimens, Bear Harbor, Mendocino Co., California, X-26-1980, F. Andrews and D. Giuliani.

9. *Aleochara arenaria* Casey. Previously reported from British Columbia to Baja California, Mexico (no locality given, Moore and Legner, 1977). New record, 7 specimens, Tortugas Bay, Baja California Sur, Mexico, III-18-1981, under kelp on rocky beach, F. Andrews and D. Faulkner.

#### Malachiidae

10. *Endeodes blaisdelli* Moore. Previously known from Colonia Guerrero, Baja California Norte, Mexico (Moore, 1954) to 39 mi N Guerrero Negro at Miller's

Landing, Baja California Norte, Mexico (Moore and Mayor, 1976). New record, 23 specimens, Tortugas Bay, Baja California Sur, Mexico, III-18-1981, under kelp on rocky beach, F. Andrews and D. Faulkner.

#### Carabidae

11. *Thalassotrechus barbarae* (Horn). Known geographic distribution from Humboldt Co., California to Bahia Magdalena, Baja California Sur. New record, 36 specimens, north end Cedros Island, Baja California Norte, III-20/21-1981, intertidal rock crevices, F. Andrews and D. Faulkner. This locality is intermediate to the known California and Baja California Sur collections. Morphologically these specimens fit the curves presented by Evans (1977), with an average body length of  $26.2 + 1.4$  mm. All individuals are testaceous with pigment spots.

#### Rhizophagidae

12. *Phyconomus marinus* (LeConte). Known geographic distribution central California south to San Diego Co., California. New record, 9 specimens, 10 mi N El Rosario, Baja California Norte, Mexico, VII-3-1979, on kelp on rocky beach, D. Giuliani.

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Moore, I and Andrews, Fred G. 1985. "Extensions of range for some seashore and intertidal beetles of western North America (Coleoptera: Staphylinidae, Carabidae, Malachiidae & Rhizophagidae)." *The Pan-Pacific entomologist* 61(3), 221–223.

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