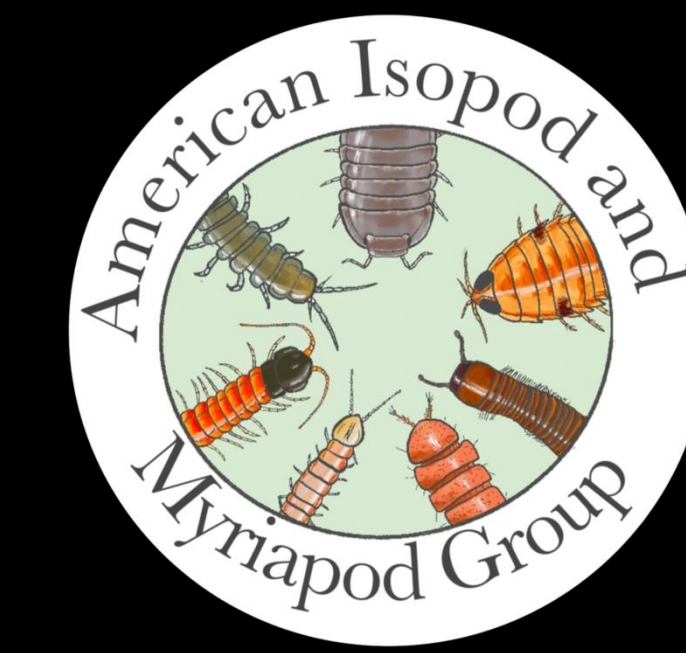


THE TERRESTRIAL ISOPOD FAUNA (ISOPODA: ONISCIDEA) OF VIRGINIA

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- The study of Virginia's terrestrial isopods began over a century ago when Richardson (1905) reported *Armadillidium vulgare* and *Porcellionides pruinosus* from the state.
- Despite this rather early onset of oniscidean studies and the state's remarkable biodiversity, Virginia's terrestrial isopod fauna has been insufficiently studied and only 19 species and subspecies have been reported from the state to date.
- Our work on the terrestrial isopod fauna of Virginia began in late 2020 and is ongoing.
- All records presented herein are based on published literature, online databases (iNaturalist, SCAN), review of materials housed at the Virginia Museum of Natural History and the American Isopod and Myriapod Group, and contemporary collections.
- 29 species and subspecies of terrestrial isopods from 20 genera and 12 families are now reliably reported from the state including Virginia's endemic *Amerigoniscus henroti* Vandel, 1950, *Ligidium elrodii leensis* Schultz, 1970, and *L. elrodii scottensis* Schultz, 1970.

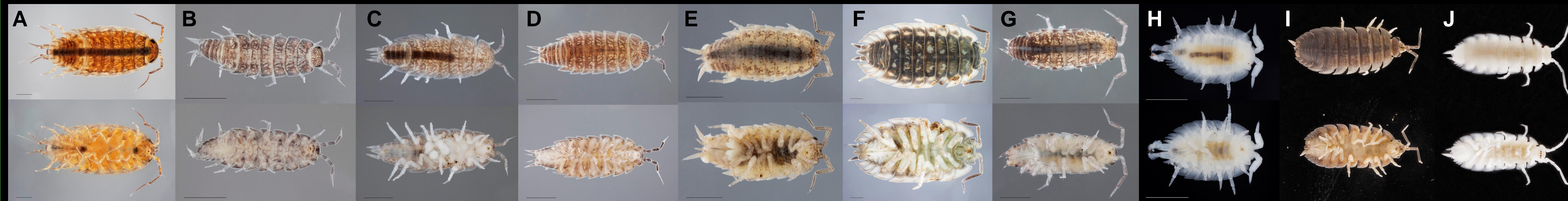


Fig. 1. Dorsal and ventral views of Oniscidea newly recorded from Virginia. A) *Ligidium blueridgensis*; B) *Hyloniscus riparius*; C) *Miktoniscus spinosus*; D) *Trichoniscus pusillus*; E) *Littorophiloscia vittata*; F) *Oniscus asellus*; G) *Chaetophiloscia sicula*; H) *Platyarthrus hoffmannseggii*; I) *Porcellio laevis*; and J) *Porcellionides floria*. Scale bars = 1 mm.

NEW RECORDS [*=nonnative taxa]

FAMILY LIGIIDAE

- 1. *Ligidium blueridgensis* Schultz, 1964** (Fig. 1A)
Distribution: Dickenson, Grayson, Russell, Washington, and Wise Cos. (Fig. 2).
As opposed to the widespread *Ligidium e. elrodii*, this closely related native species appears to be confined to the Southern Appalachians.

FAMILY TRICHONISCIDAE

- 2. **Hyloniscus riparius* (Koch, 1838)** (Fig. 1B)
Distribution: widespread (Fig. 2).
This European species is widespread throughout eastern North America where it is commonly associated with wooded areas. It was recently collected in multiple cave systems throughout the Virginian Appalachians.
- 3. *Miktoniscus spinosus* (Say, 1818)** (Fig. 1C)
Distribution: Accomack, Arlington, Fairfax, and Sussex Cos., City of Virginia Beach (Fig. 2).
This native species is primarily associated with marshes along North America's Atlantic Coast, although its distribution does occasionally extend farther inland.
- 4. **Trichoniscus pusillus* Brandt, 1833** (Fig. 1D)
Distribution: western Virginia (Fig. 2).
This small-bodied European species is parthenogenic, and males are rarely encountered in both its native and introduced ranges.

FAMILY HALOPHILOSCIIDAE

- 5. *Littorophiloscia vittata* (Say, 1818)** (Fig. 1E)
Distribution: Accomack and Northampton Cos., City of Virginia Beach (Fig. 2).
This native species is almost exclusively found within short distances of brackish or salt water along the coasts of the Atlantic Ocean and the Gulf of Mexico.

FAMILY ONISCIDAE

- 6. **Oniscus asellus* Linnaeus, 1758** (Fig. 1F)
Distribution: widespread and likely statewide (Fig. 2).
Native to the British Isles, this species has been introduced to most parts of the world, although it has yet to become established in the Mediterranean.

FAMILY PHILOSCIIDAE

- 7. **Chaetophiloscia sicula* Verhoeff, 1908** (Fig. 1G)
Distribution: Accomack, Arlington, Fairfax, and James City Cos., Cities of Alexandria, Hampton, Portsmouth, Richmond and Virginia Beach (Fig. 2).
Native to the Mediterranean, this species was not recorded in the New World until 2003, when it was first reported from Baltimore, MD (Hornung & Szlavecz 2003).

FAMILY PLATYARTHRIDAE

- 8. **Platyarthrus hoffmannseggii* Brandt, 1833** (Fig. 1H)
Distribution: Arlington Co. (Fig. 2).
This obligate myrmecophile has adapted its lifestyle to a subterranean existence, losing both its cuticular pigmentation and eyes.

FAMILY PORCELLIONIDAE

- 9. **Porcellio laevis* Latreille, 1804*** (Fig. 1I)
Distribution: Accomack Co., Cities of Hampton, Lynchburg, Richmond, and Staunton (Fig. 2).
This North African species displays a sparse distribution in eastern North America where it is restricted to anthropogenically modified habitats.
- 10. **Porcellionides floria* Garthwaite & Sassaman, 1985** (Fig. 1J)
Distribution: Accomack Co. (Fig. 2).
Self-sustaining populations of *P. floria* in Virginia have yet to be discovered. The Accomack record appears far north of this species' known range.

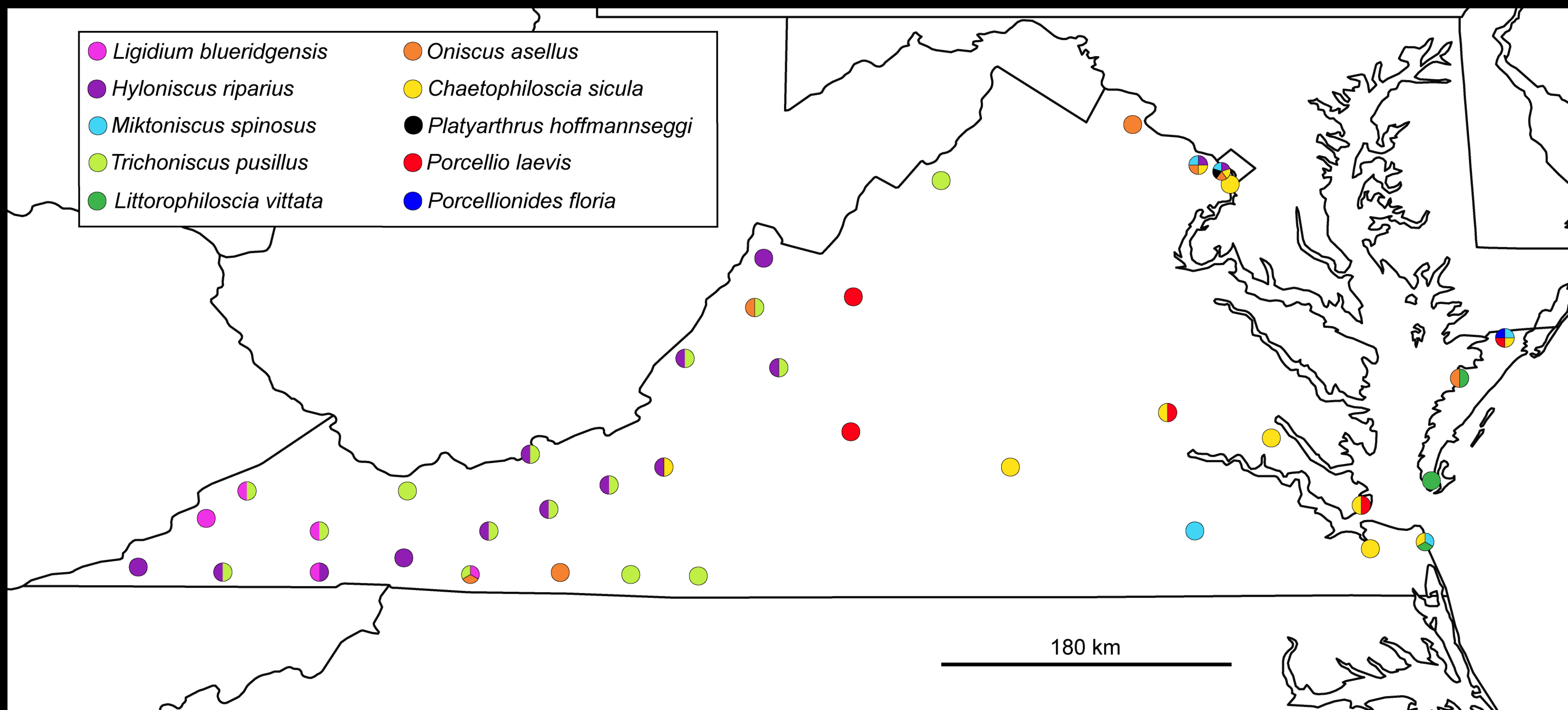


Fig. 2. Map of Virginia showing county level localities of the new records.

CHECKLIST

[*=nonnative taxa]

DIPLOCHETA

FAMILY LIGIIDAE

1. *Ligia exotica** coastal Virginia
2. *Ligidium blueridgensis* Dickenson, Grayson, Russell, Washington, and Wise Cos.
3. *Ligidium elrodii elrodii* statewide
4. *Ligidium elrodii leensis* Lee Co. (Schultz 1970)
5. *Ligidium elrodii scottensis* Scott Co. (Schultz 1970)

SYNOCHETA

FAMILY TRICHONISCIDAE

6. *Amerigoniscus henroti* Lee Co.
7. *Haplophthalmus danicus** statewide
8. *Hyloniscus riparius** widespread
9. *Miktoniscus medcofi* western Virginia / Blue Ridge
10. *Miktoniscus racovitzae* western Virginia / Blue Ridge
11. *Miktoniscus spinosus* Accomack, Arlington, Fairfax, and Sussex Cos., City of Virginia Beach
12. *Trichoniscus provisorius** Washington Co. (Vandel 1956)
13. *Trichoniscus pusillus** western Virginia

CRINOCHEETA

FAMILY ARMADILLIDIDAE

14. *Armadillidium nasatum** statewide
15. *Armadillidium vulgare** statewide

FAMILY CYLISTICIDAE

16. *Cylisticus convexus** widespread and likely statewide

FAMILY DETONIDAE

17. *Armadilloniscus ellipticus** Isle of Wight and Northampton Cos., Cities of Norfolk, Portsmouth, and Virginia Beach

FAMILY HALOPHILOSCIIDAE

18. *Halophiloscia couchii** Accomack Co., City of Portsmouth
19. *Littorophiloscia vittata* Accomack and Northampton Cos., City of Virginia Beach

FAMILY ONISCIDAE

20. *Oniscus asellus** widespread and likely statewide

FAMILY PHILOSCIIDAE

21. *Chaetophiloscia sicula** Accomack, Arlington, Fairfax and James City Cos., Cities of Alexandria, Hampton, Portsmouth, Richmond, and Virginia Beach
22. *Philoscia muscorum** widespread and likely statewide

FAMILY PLATYARTHRIDAE

23. *Platyarthrus hoffmannseggii** Arlington Co.

FAMILY PORCELLIONIDAE

24. *Porcellio laevis** Accomack Co., Cities of Hampton, Lynchburg, Richmond, and Staunton
25. *Porcellio scaber** statewide
26. *Porcellionides floria** Accomack Co.
27. *Porcellionides pruinosus** Northampton Co., City of Martinsville

FAMILY SCYPHACIDAE

28. *Scyphacella arenicola* City of Norfolk

FAMILY TRACHELIPODIDAE

29. *Trachelipus rathkii** statewide