



Earthworms Beyond^{the} Record



**Biological
Recording
Company**



National Earthworm Recording Scheme



National Earthworm Recording Scheme v11 © Keiron Derek Brown.
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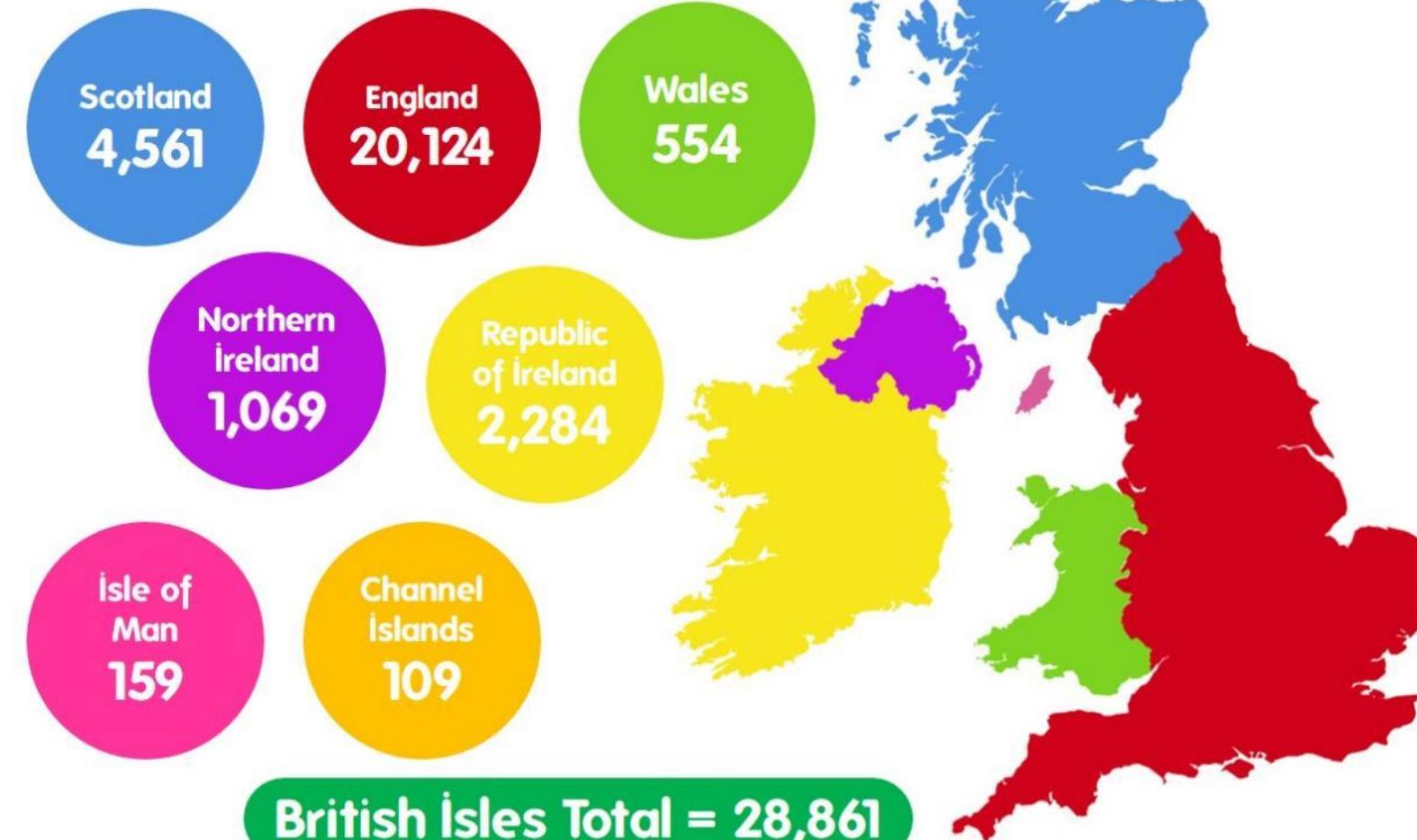


References

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- Brown, K.D. (2022). National Earthworm Recording Scheme Records (Channel Islands). Occurrence dataset
- Brown, K.D. & Harvey, S.K.(2024). National Earthworm Recording Scheme Records (Isle of Man). Occurrence dataset
- Brown, K.D., Keith, A.M. & Lysaght, L. (2024) Earthworms of Ireland. National Biodiversity Data Centre. Occurrence dataset
- Brown, K.D., Ashwood, F. & Calloway, K. (2024). Earthworm Research Records (UK). Occurrence dataset
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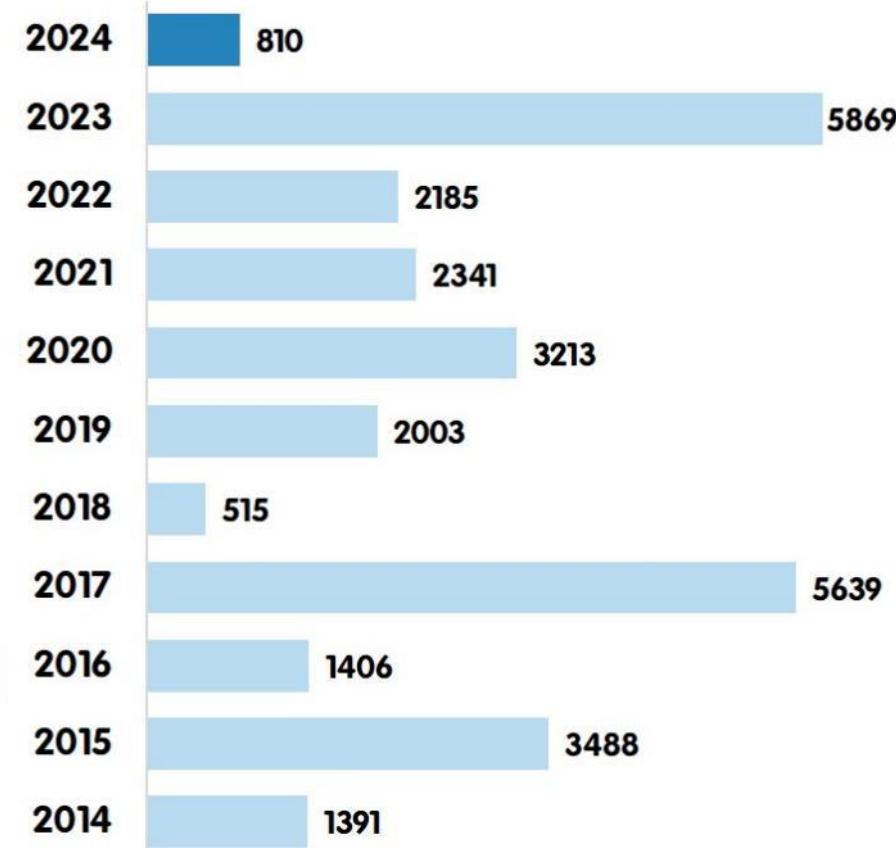
Number of Records By Country

11 Aug 2024

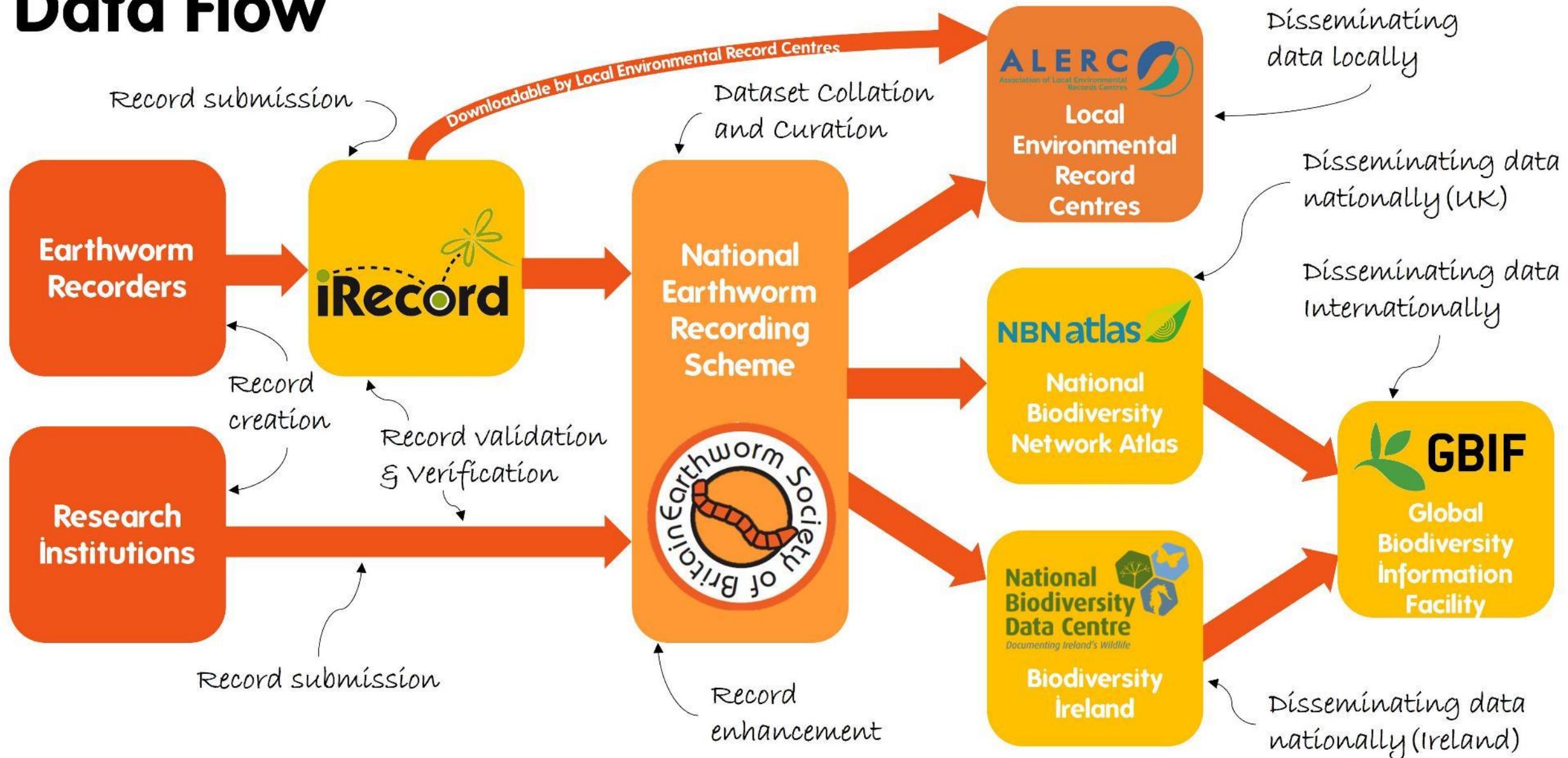


Number of Records Submitted By Year

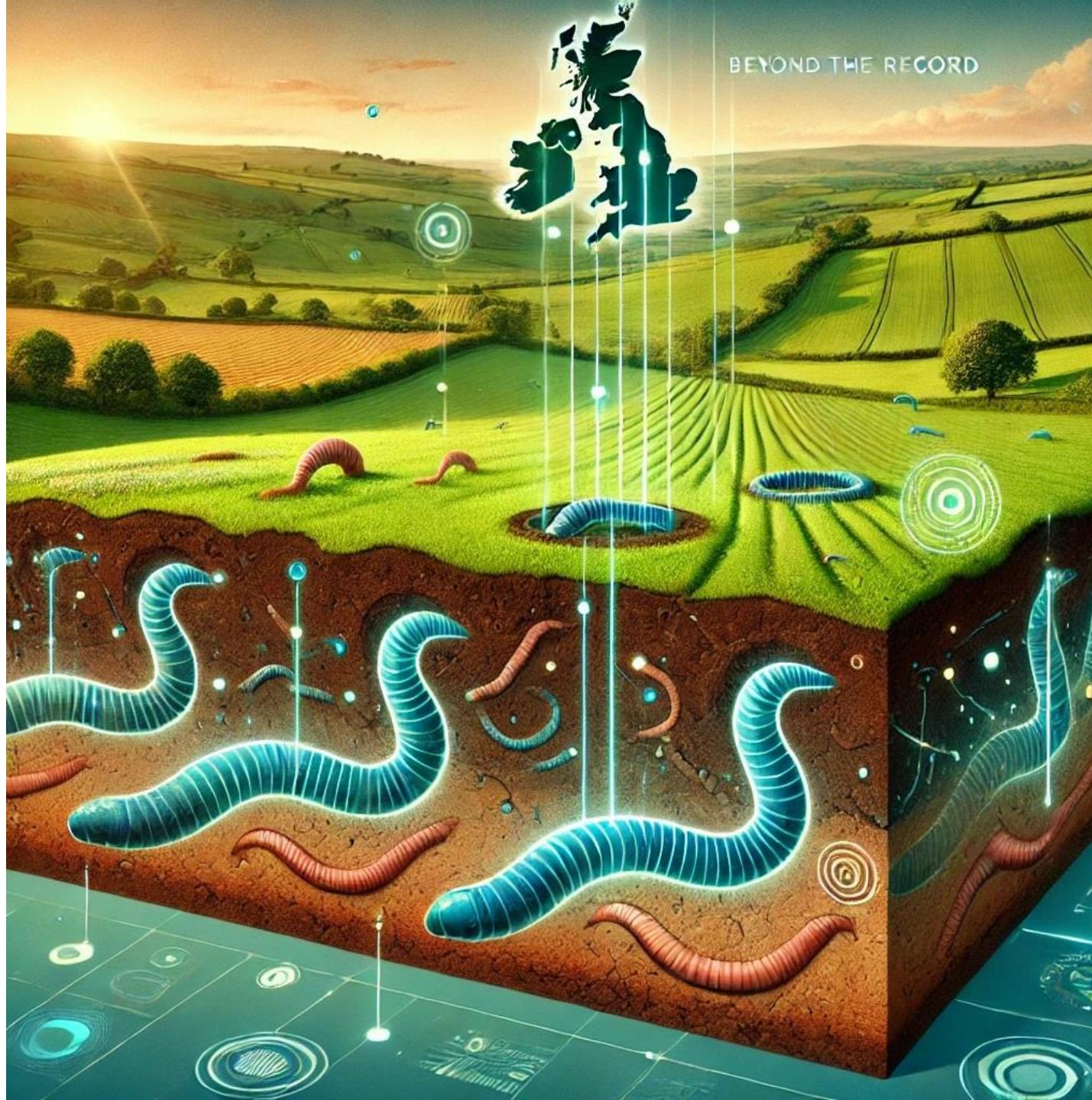
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Earthworm Recording Data Flow



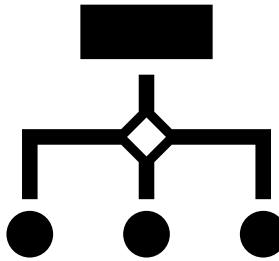
Beyond the Record



Uses of earthworm records



Distribution



Taxonomy



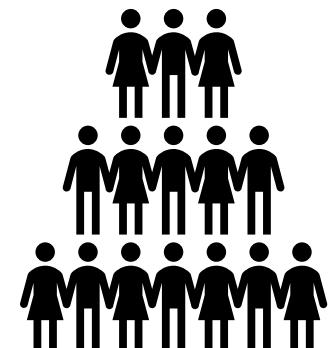
Ecology



Research

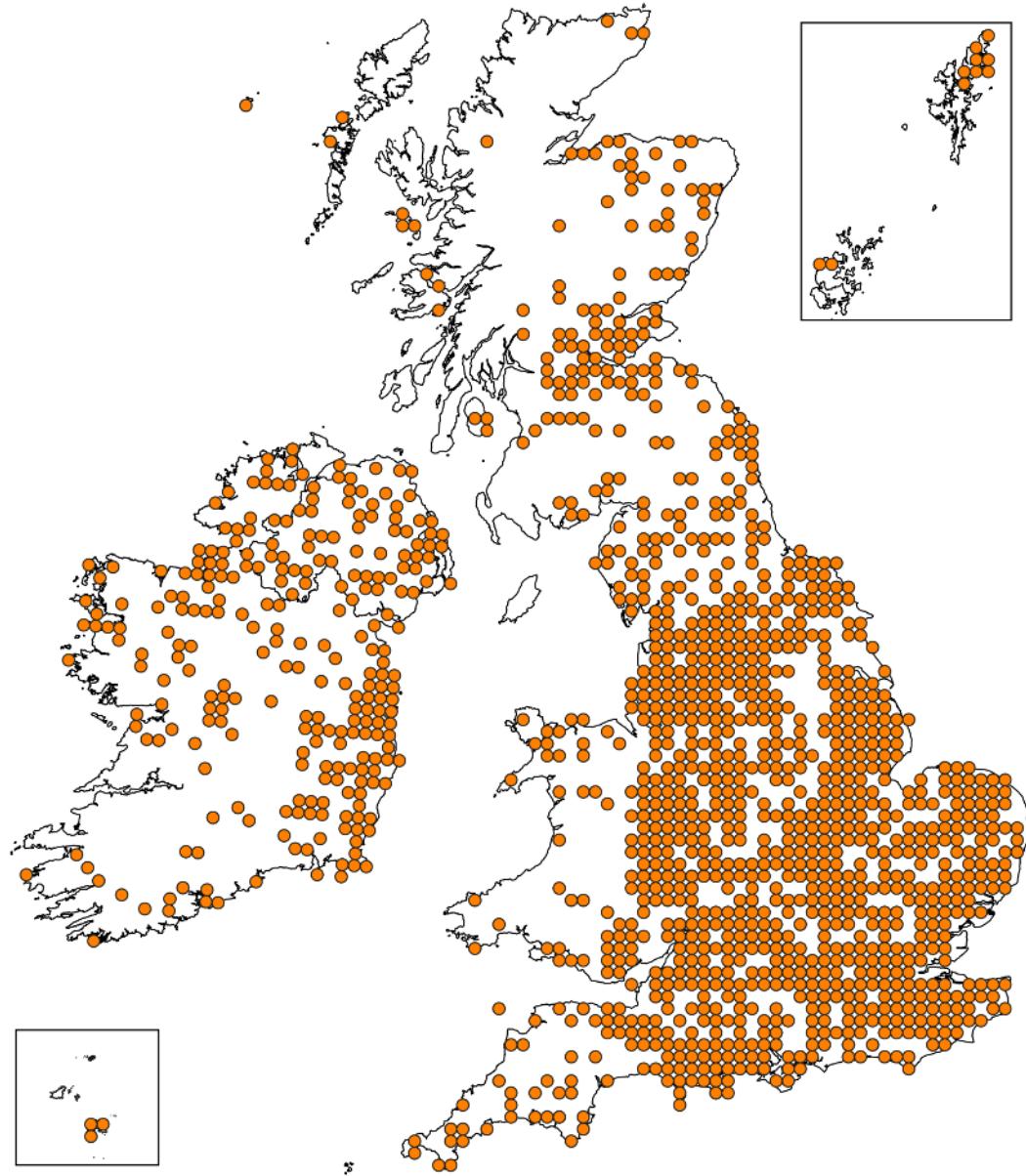
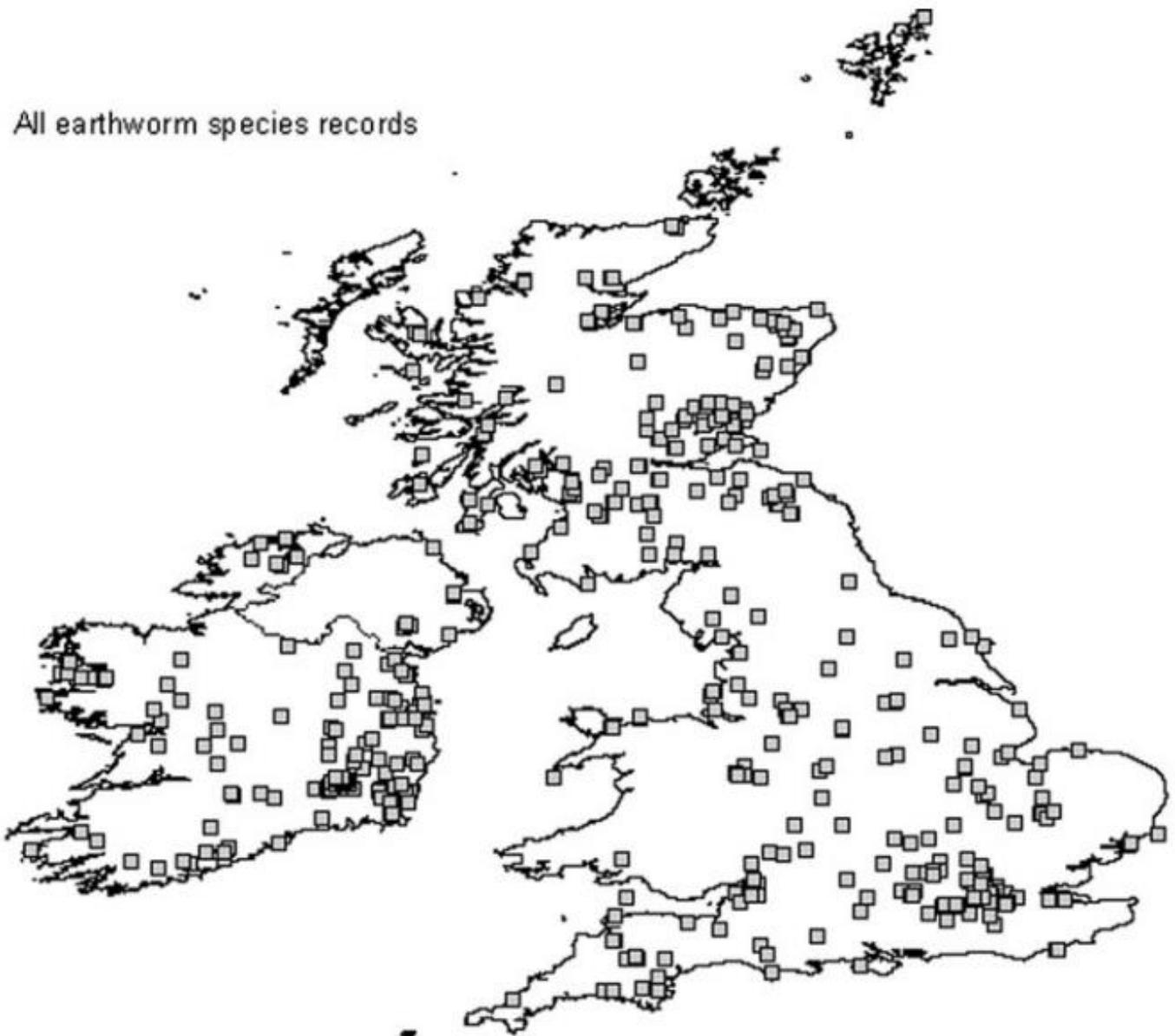


Conservation



Engagement

■ All earthworm species records

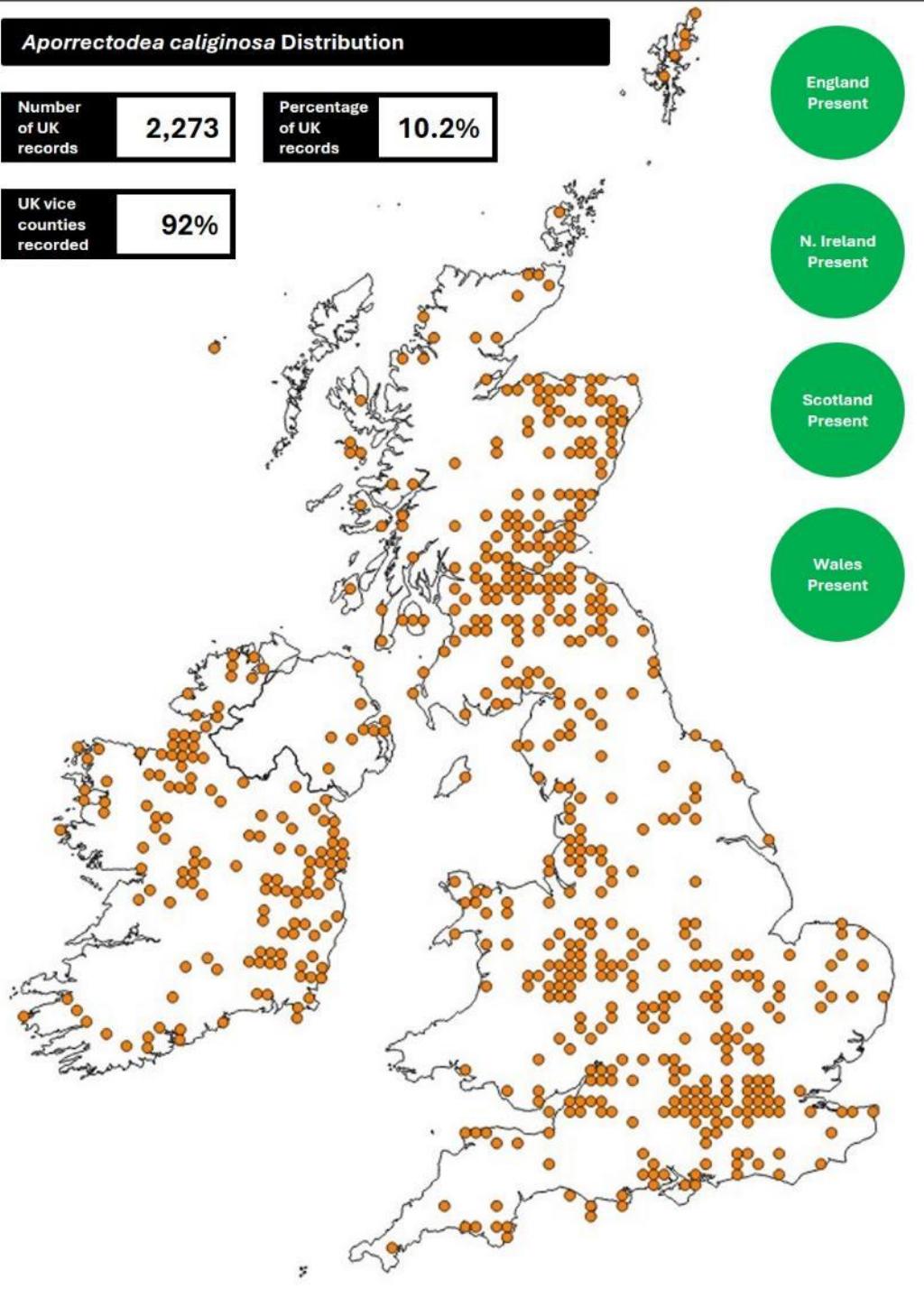


Aporrectodea caliginosa Distribution

Number
of UK
records
2,273

Percentage
of UK
records
10.2%

UK vice
counties
recorded
92%

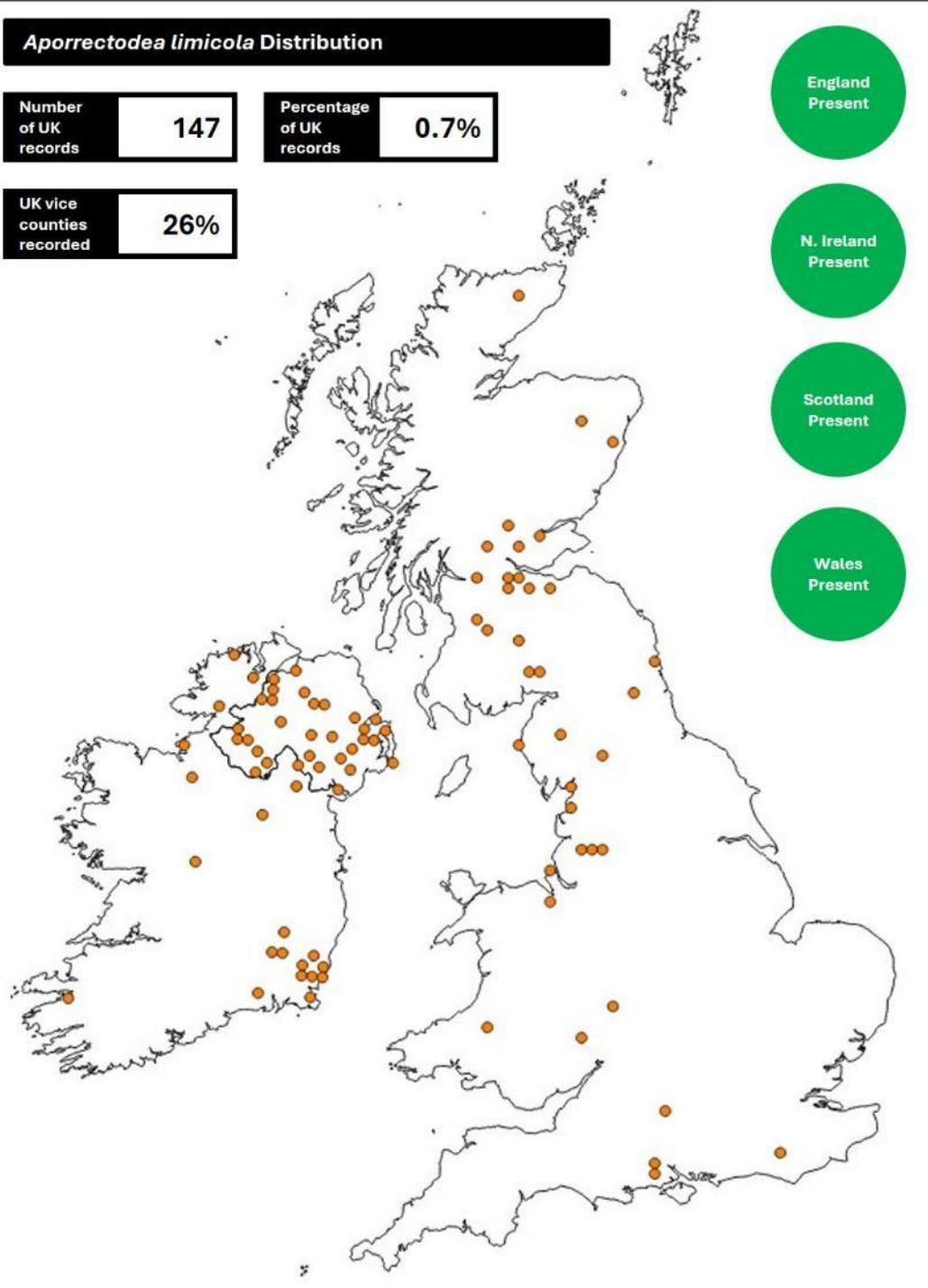


Aporrectodea limicola Distribution

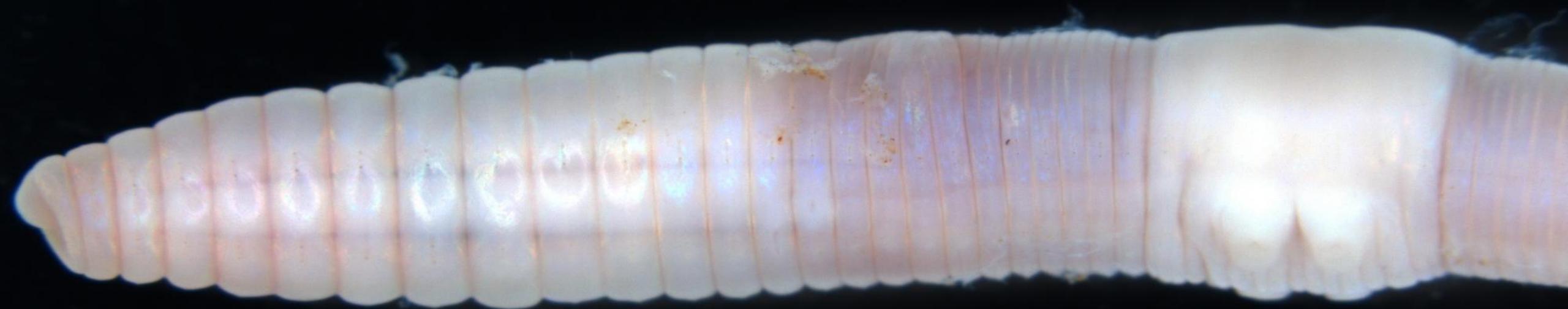
Number
of UK
records
147

Percentage
of UK
records
0.7%

UK vice
counties
recorded
26%



Aporrectodea cupulifera



West Sussex
Recorded by Natural England
17 October 2023

Key to the earthworms of the UK and Ireland

By Emma Sherlock



Earthworms Second Edition 2018

46

***Aporrectodea longa* (Savigny, 1826)**

Rare

Ecological group: endogeic

Colour in life: usually grey, but can be variable; yellow, grey or sometimes with a brown tint

Habitat: found in grasslands and orchards

External characters 

- Male pores:** segment 15 often exceeding onto segments 14 and 16
- Citellum:** 22 or 24 through to 42-43 (rarely 44)
- TP:** long thin band; 25 or 26 through to 42 or 43
- Setae:** closely paired
- Head:** aploic
- Length:** 10-140 mm. Diameter: 3-6 mm

Internal characters

- Calcareous glands:** 70-10-12
- Testicular vesicles:** 9-12
- Spermathecae:** 3 pairs in 9, 10 and 11

78

A. longa

Internal structures

Spermathecae

Spermathecae are sacs used to store the sperm received from another worm, often with diverticula leading from each sac. Useful characters include the size and shape of the sacs and diverticula, the attachment of the diverticula to the sacs, plus the location of where the spermathecae attach to the body wall.

Figure 18. Spermathecae.

8. Shallow

Figure 19. Spermathecae.

Figure 20. Citellum and gut.

Figure 21. Internal glands.

Figure 22. Internal structures from a specimen reacted by dilution.

Figure 23. External features.

Figure 24. Head.

Figure 25. Male pores.

Figure 26. Setae.

Figure 27. Anal region.

Figure 28. A. longa.

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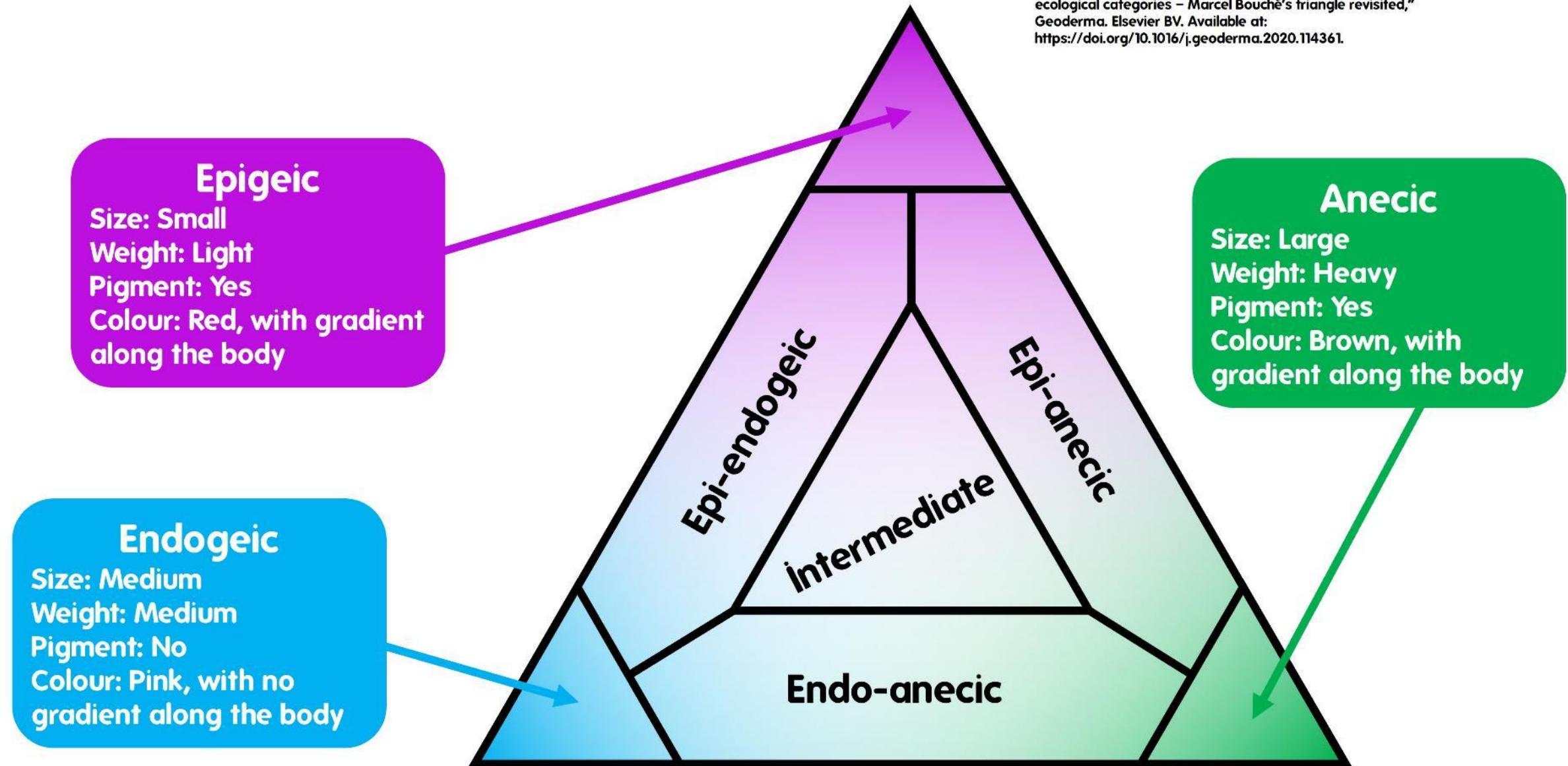
Earthworm Ecological Categories

Earthworm Ecological Categories v2 © Keiron Derek. Licensed under a Creative Commons By Attribution 4.0 Licence (CC BY 4.0)



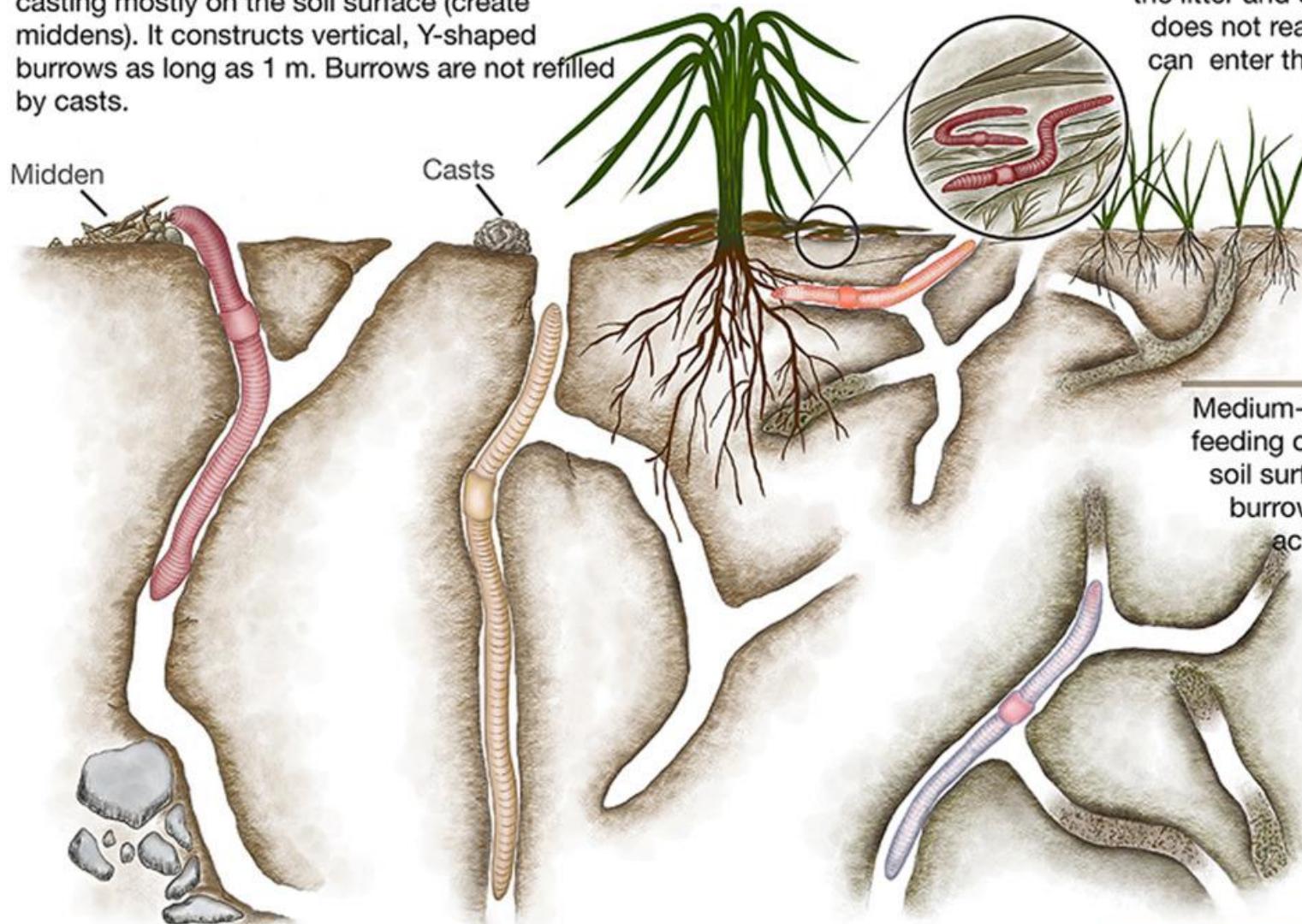
References

Bottinelli, N. et al. (2020) "An explicit definition of earthworm ecological categories – Marcel Bouché's triangle revisited," Geoderma. Elsevier BV. Available at: <https://doi.org/10.1016/j.geoderma.2020.114361>.



Burrower (Epi-anecic)

Large-sized earthworms (15 cm), feeding and casting mostly on the soil surface (create middens). It constructs vertical, Y-shaped burrows as long as 1 m. Burrows are not refilled by casts.



Intense tunneler (Anecic)

Large-sized earthworms (>20 cm), feeding and casting on the soil surface. High burrowing activity constructing preferentially vertical burrows, which rarely are refilled by casts.

Litter dweller (Epigeic)

Small-sized earthworms (5 cm), feeding in the litter and casting at the soil surface. It does not really construct burrows, but it can enter the soil to avoid unfavourable conditions and predators

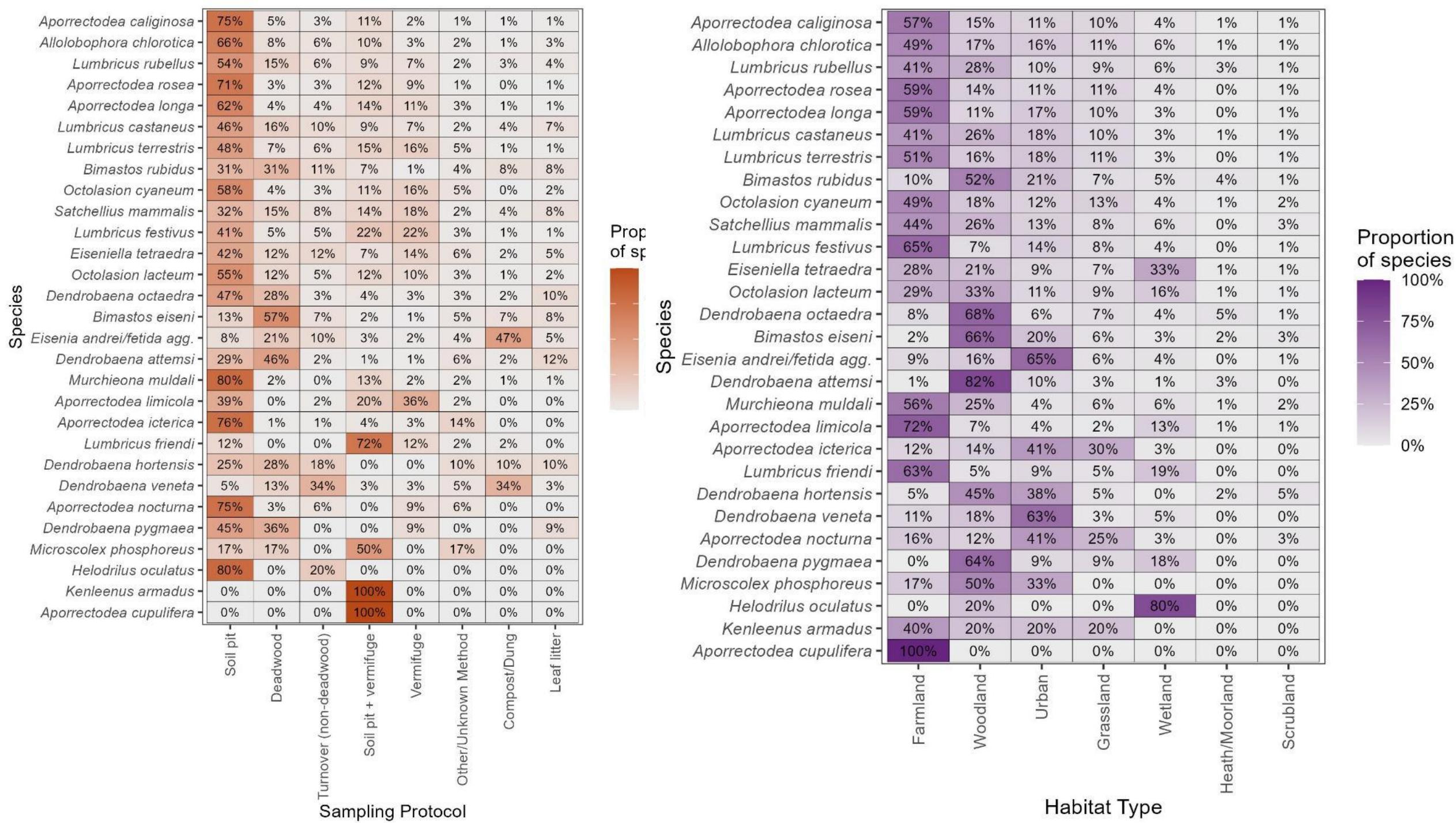
Shallow bioturbator (Epi-endogeic)

Medium-sized earthworms (7.5 cm), feeding on litter accumulated on the soil surface, and casting inside the burrows refilling them. Burrowing activity closes to rhizosphere.

Cast-refilled burrows

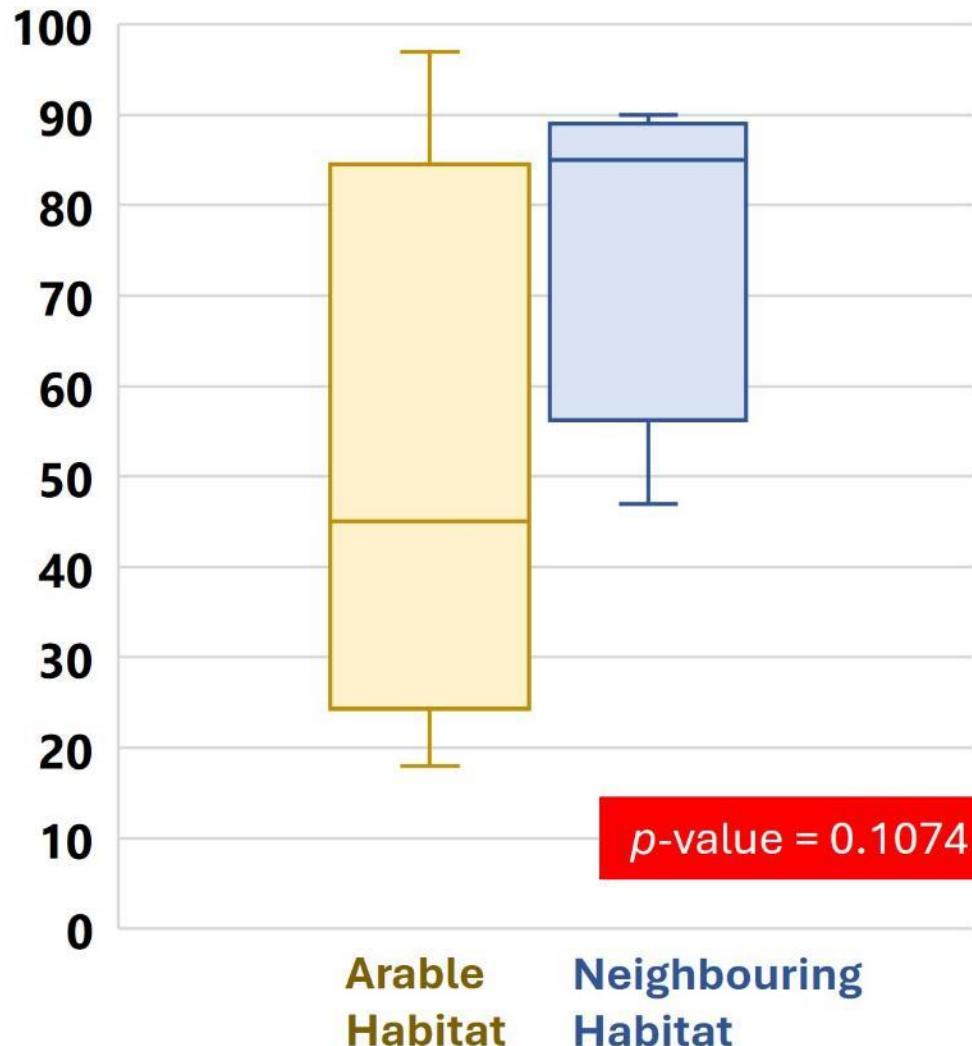
Deep bioturbator (Hypo-endogeic)

Large-sized (10 cm), geophagous earthworms permanently living in the subsoil (>15 cm depth). The burrows are not connected to the soil surface, and they can be mostly filled by casts.

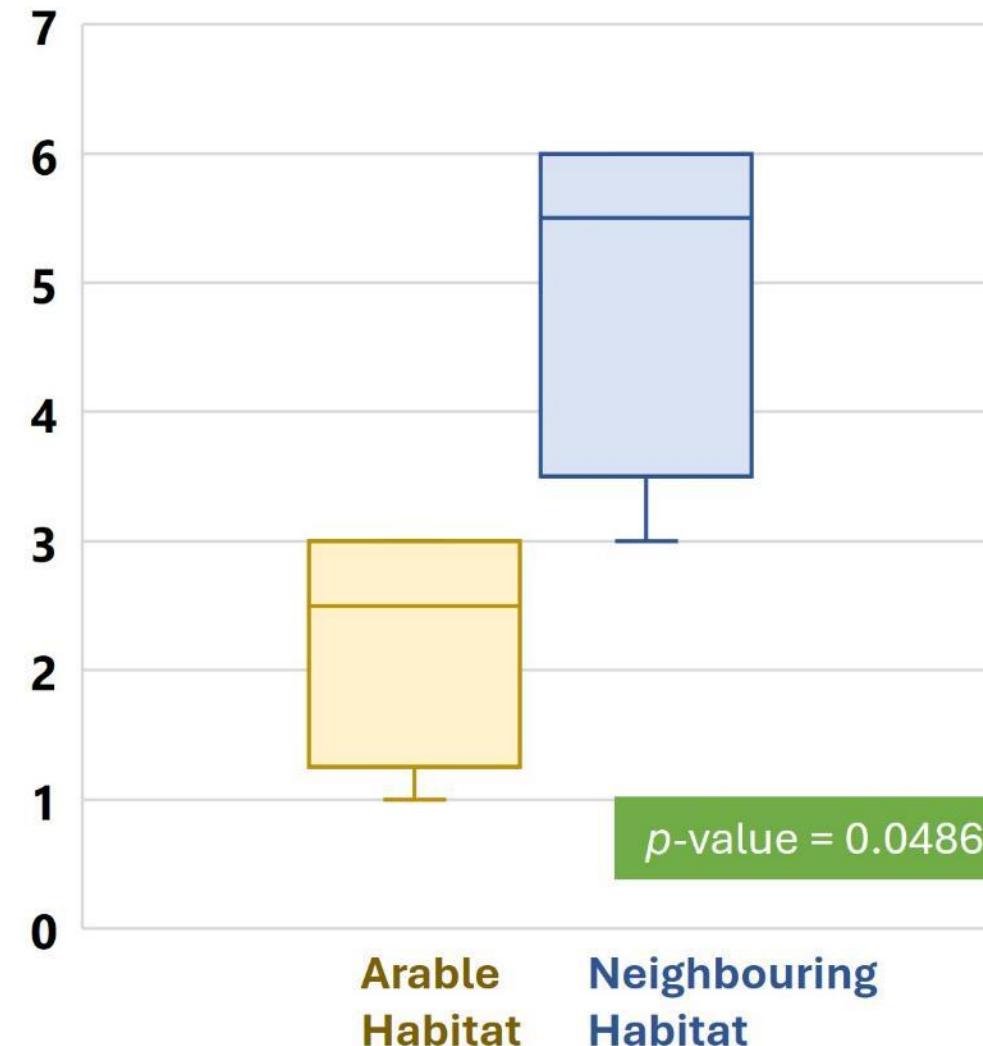


Arable Sites Earthworm Survey Results

Box plot: Earthworm abundance



Box plot: Earthworm species diversity

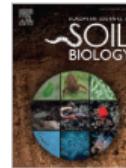


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European Journal of Soil Biology

Volume 122, September 2024, 103642



Original article

Earthworm records and habitat associations in the British Isles

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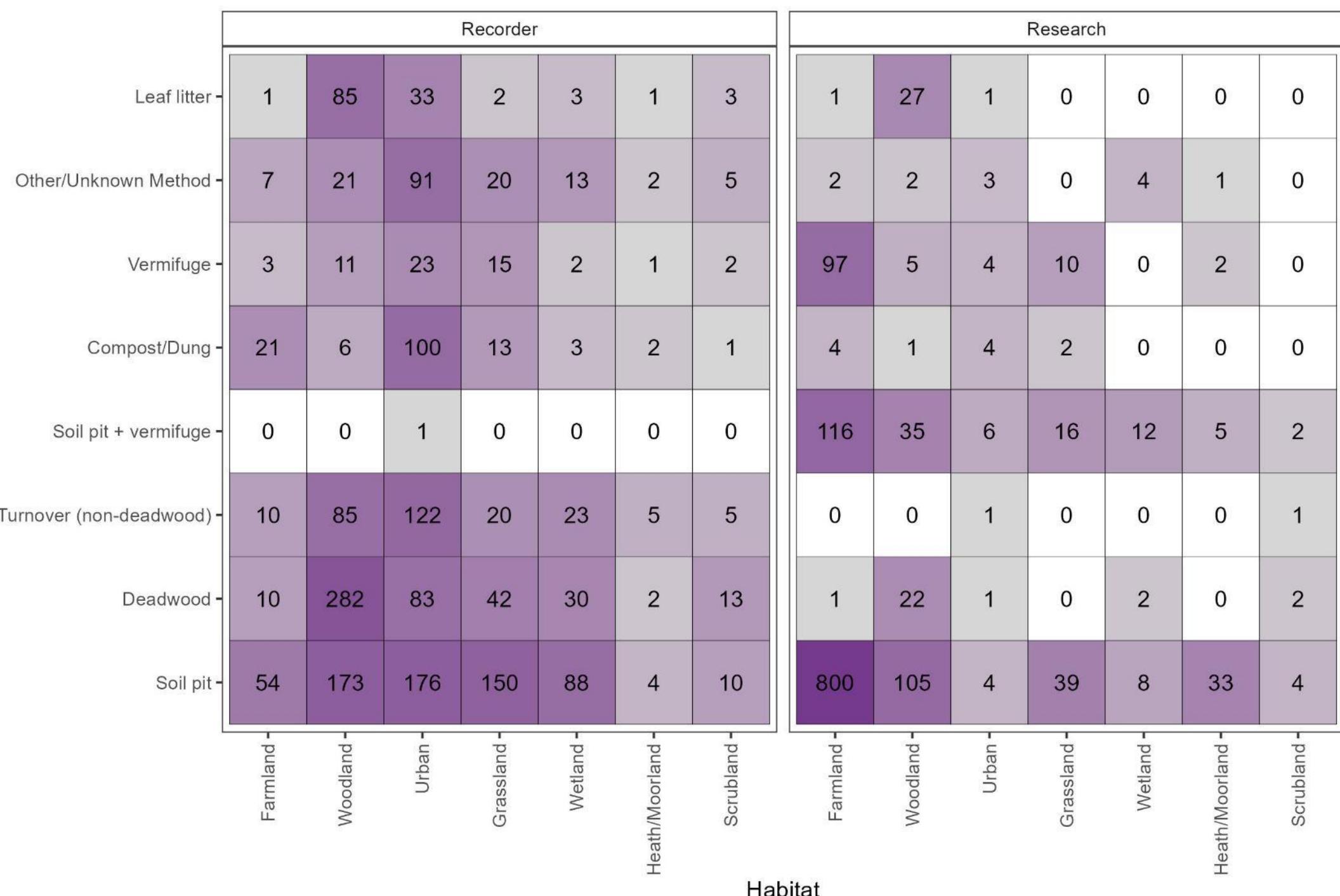
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Habitat

n Sites

- 1
- 10
- 100

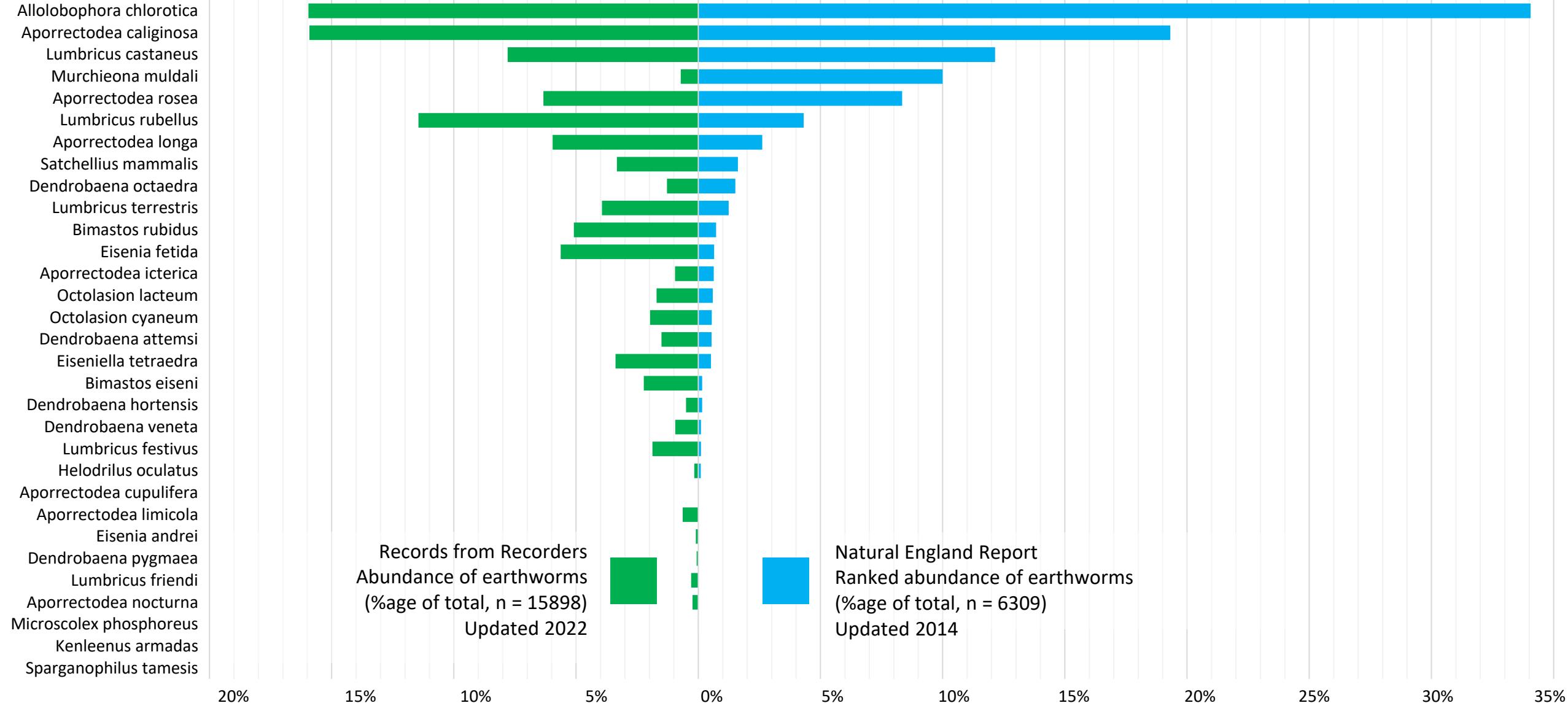
Ranked Abundance of Earthworms in the British Isles

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Provisional Conservation Status Assessment

Geographic
Range

Population
Size

Habitat
Specificity

Number of
Records

Lack of Recent
Records

Rarity

Very Rare

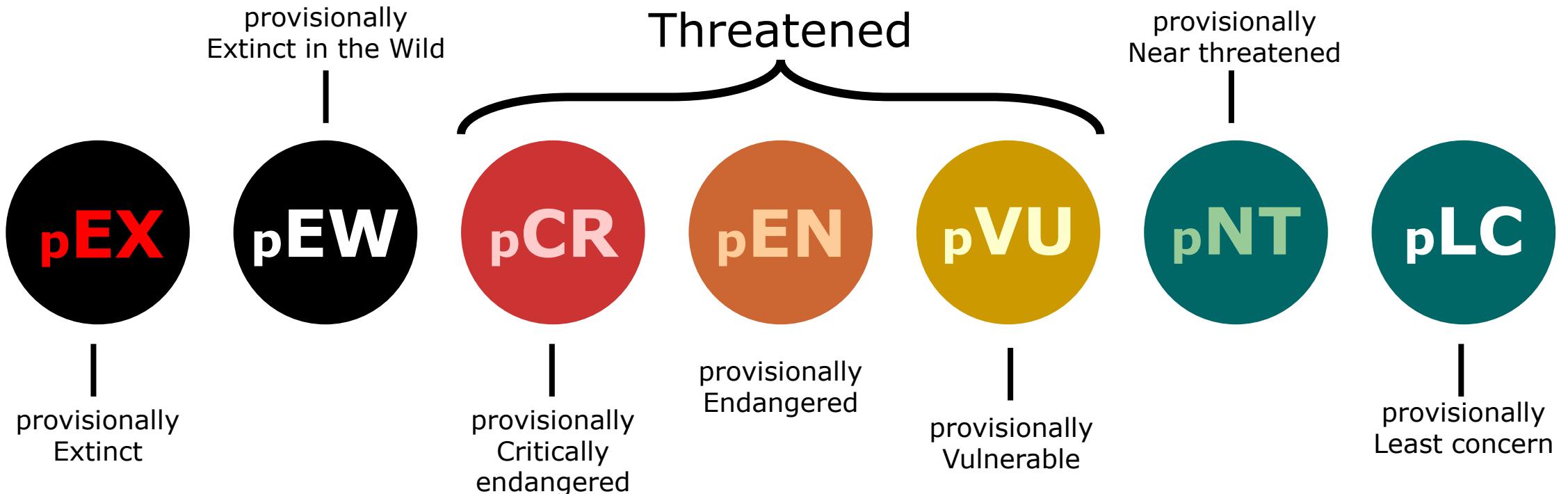
Rare

Uncommon

Common

Very Common

Provisional Conservation Status Assessment



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