

a double frame of reference, but neither refers to a pack animal.³ It is indicative of the wordplays in this scene that Sosia continues to invert the tenor of Mercury's remarks.

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3. Indeed, *TLL* cites no clear examples of *inanis* used to describe an unladen animal. For the use of *inanis* to describe an unladen, as opposed to an unmanned, ship, *TLL* (7.1: 822.15–17) cites two later examples, both contrasting empty with laden ships: Cic. 2 *Verr.* 5. 46 *inanem te navem (onerariam) esse illam in Italiam adducturum* and Pliny *Pan.* 31. 4 *navigia inania et vacua (opp. plena et onusta)*.

NICANDER *THERIACA* 811: A NOTE

One of the most puzzling animals in Nicander's *Theriaca* is called *ζουλος* (811). Following LSJ, A. S. F. Gow and A. F. Scholfield translate "woodlouse" (in the United States, "sowbug" or "pillbug").¹ An animal in Isopoda, however, has little relationship to the passages of the *Theriaca* (669–814), which describe nine kinds of scorpions,² two kinds of wasps, and a centipede;³ and a "sowbug" does not fit the context of these passages.

Part of the problem may be that British English appears to make little distinction between given myriapods and isopods,⁴ perhaps because some of the creatures under consideration look quite similar on casual observation and because many of them curl up into balls when disturbed. By contrast, scholars on the continent have long recognized that *δ ζουλος* quite often designates a myriapod,⁵ even though ancient Greek also did not make a clear distinction between myriapods and isopods in many cases.⁶

Ο *ζουλος* appears in Aristotle *Historia animalium* 523b18 (ἔστι δ' ἔντομα καὶ ἄπτερα, οἷον ζουλος καὶ σκολόπενδρα) and *De partibus animalium* 682b3 (καὶ μάλιστα πολύποδα τὰ μάλιστα κατενυγμένα διὰ τὸ μήκος οἷον τὸ τῶν ζούλων γένος) and 682a5 (καθάπερ τοῖς ζουλώδεσι καὶ μακροῖς), and it is clear that the creature is usually larger and longer than sowbugs or woodlice. Galen *De usu partium* 3. 2 restates *De partibus ani-*

1. For the text, see Gow and Scholfield's edition, *Nicander. The Poems and Poetical Fragments* (Cambridge, 1953), p. 83. LSJ⁹, s.v. *ζουλος* IV, state that the animal is "probably the woodlouse." The initial word suggests that Jones may have recognized the problem. Gow in his introductory remarks to *Nicander* (p. 23) writes that "Nicander mentions . . . two myriopods, ζουλος and σκολόπενδρα, classed as insects by Aristotle . . .," but in his note on the passage (pp. 186–87) says, "ζουλος and σκολόπενδρα are mentioned together as wingless insects at Arist. *HA* 523b18. The first, glossed *δνος* in Hsch. (cf. Plin. *HN* 29. 136), is no doubt a woodlouse of one or more species; the second a centipede. . . . The woodlouse is of course harmless, but the bite of some centipedes is poisonous." This means that Gow presumes "woodlouse" to be a myriapod, and "woodlouse" becomes Scholfield's translation of ζουλος. Gow seems to be confused by the vagueness of his native language; cf. n. 4 below. For American and British English equivalents, see S. Sutton, *Woodlice* (London, 1972), *passim*.

2. See my "Nicander's Toxicology, II: Spiders, Scorpions, Insects and Myriapods. Part I," *Pharmacy in History* 21 (1979): 15–18.

3. *Ther.* 812 ἀμφικαρῆς σκολόπενδρα.

4. E.g., *NED*, s.v. "woodlouse," esp. [2]; *OED*, s.v. "woodlouse," esp. 2a, e.

5. E.g., O. Keller, *Die antike Tierwelt*, vol. 2 (Hildesheim, 1963), pp. 481–82; L. Fernandez, *Nombres de insectos en griego antiguo* (Madrid, 1959), p. 39.

6. Byzantine scholars noted variance of onomastic usage, best seen in schol. Aratus *Phaen.* 957 Martin: ζουλοι: οἱ μὲν ὁμοίους εἶναι σκολοπένδραις, οἱ δὲ αὐτὰς τὰς σκολοπένδρας, ἄλλοι δὲ τὸν σκώληκα τὸν μυρίοις ποσὶ χρώμενον. Cf. Hsch., s.v. ζουλος.

malium 682b3 but couples *ζουλος* with *σκολόπενδρα* in a manner that indicates both animals are fairly large (τινά δὲ καὶ δι' αὐτὸ τοῦτο προμηκέστερα τοῖς ὄλοις σώμασιν ἐγένετο, καθάπερ ζουλος τε καὶ σκολόπενδρα, χῶραν τῷ πλήθει τῆς τῶν σκελῶν ἐκφύσεως προμηθουμένης τῆς φύσεως [Helmreich, 1:129]). Theophrastus *De signis tempestatum* 19 says that rain is imminent when οἱ ζουλοι crawl up a wall (καὶ ζουλοι πολλοὶ πρὸς τοῖχον ἔρποντες ὕδατικόν). Significantly, A. Hort translates ζουλοι as "millipedes."⁷ Aratus 957 derives from Theophrastus *De signis* 19, and the scholia tell us exactly what is meant by ζουλοι.⁸ The creatures are sometimes like centipedes, sometimes like worms with countless feet. The latter are millipedes. Numenius, quoted in Athenaeus 305A, tells us that ζουλοι were black.⁹ Thus, ὁ ζουλος (the animal) has the basic meaning of "millipede," as shown by Aristotle, Theophrastus, Nicander, and Galen, as well as by manuscript illuminations and their labels.¹⁰ Manuscripts also make it clear that ὁ ὄνος means "sowbug" or "woodlouse," as seen in Aristotle, Theophrastus, and Galen.¹¹

Isopodae rarely exceed one inch in length, and a sowbug cannot be the creature in Nicander *Theriaca* 811. Nicander, or his source,¹² appears to know of harm that could come from a millipede, which must be one of the larger species among *Spirobolidae* that can be up to four inches long, and part of that danger has been confirmed in the modern literature.¹³ J. Cloudsley-Thompson also describes a large millipede (*Rhinocricus lethifer*) from Haiti that discharges an acid spray,¹⁴ and there are analogous creatures from Greece, Asia Minor, and Egypt. Sowbugs, however, are completely harmless.¹⁵

7. Theophrastus: "Enquiry into Plants" and Minor Works on Odours and Weather Signs, vol. 2 (London, 1916), p. 403.

8. See n. 6; cf. A. Crugnola (ed.), *Scholia in Nicandri "Theriaka"* (Milan, 1971), 805–12 summary (p. 286), and I. Gualandri (ed.), *Euctecni Paraphrasis in Nicandri "Theriaca"* (Milan, 1969), 805–16 (p. 63).

9. Athen. 304F–305A: *ζούλους δ' ὁ αὐτὸς* [Numenius] *ὀνομάζει τὰ ἔντερα τῆς γῆς διὰ τούτων* line omitted] *οἱ μὲν ζουλοι κέκληνται, μέλαρες, γαιηφάγοι, ἔντερα γαίης*.

10. Cod. Vind. Med. Gr. 1 fol. 422^r, Cod. New York Pierpont Morgan M 652 fol. 380^v, Cod. Vat. Chis. 53 (F. VII. 159) fol. 227^r, and Cod. Bonon. Bibl. Univ. Gr. 3632 fol. 381^r. Cf. Z. Kádár, *Survivals of Greek Zoological Illuminations in Byzantine Manuscripts*, trans. T. Wilkinson (Budapest, 1978), p. 42 and pls. 29, 44, 51, 54.

11. Cod. New York Pierpont Morgan M 652 fol. 209^v, Cod. Vat. Gr. 284, fol. 236^v, Cod. Vat. Chis. 53 (F. VII. 159) fol. 210^r. Cf. Kádár, *Survivals*, pls. 72, 89, 94. See also Arist. *HA* 557a23; Theophr. *Hist. pl.* 4. 3. 6; Galen 12. 366 Kühn (= *De simpl. med. temp. ac fac.* 11. 49).

12. See my "Nicander's Toxicology, I: Snakes," *Pharmacy in History* 19 (1977): 3–4, and "Nicander's Toxicology, II," p. 18. Apollodorus was probably Nicander's source.

13. It has been shown that millipedes produce a number of potent substances as defensive agents against their enemies, especially ants. Hydrogen cyanide: C. Guldensteeden-Egeling, "Über Bildung von Cyanwasserstoffsäure bei einem Myriapoden," *Pflügers Archiv für Physiologie* 28 (1882): 576–79; H. E. Eisner, W. F. Wood, and T. Eisner, "Hydrogen Cyanide Production in North American and African Polydesmoid Millipeds," *Psyche* 82 (1975): 20–23. Polyzonimine: J. Smolanoff, A. F. Kluge, et al., "Polyzonimine: A Novel Terpenoid Insect Repellent Produced by a Millipede," *Science* 188 (1975): 734–36. Benzoquinone: J. Smolanoff, J. M. Demange, J. Meinwald, and T. Eisner, "1,4-Benzoquinones in African Millipeds," *Psyche* 82 (1975): 78–80. Especially dangerous to humans, hydrogen cyanide (also called hydrocyanic acid) is used, in the form of compressed gas, to exterminate insects and rodents on ships and to kill insects in trees. Death can result from a few minutes exposure to three hundred parts per million. A good "dose" from a large millipede of the *Spirobolidae* could, indeed, cause dyspnea, some dizziness, and a lasting headache, particularly if the individual inhaled any of the substance.

14. *Spiders, Scorpions, Centipedes, and Mites* (Oxford, 1968), p. 36.

15. One species (*Armadillium klugii* of Yugoslavia) mimics *Latrodectus mactans* (the Black Widow spider) quite successfully, presumably to deter being eaten by lizards; see H. W. Levi, "An Unusual Case of Mimicry," *Evolution* 19 (1965): 261–62.

LSJ, s.v. *ιουλος* IV, should be emended to read “‘a millipede, probably of the *Spirobolidae*.’ Arist. HA 523b18, PA 682a5, b3, Thphr. *Sign.* 19, Nic. *Ther.* 811, schol. Arat. 957 M., Gal. *UP* 3. 2, Numen. ap. Ath. 305A.” It should be noted that the supplement to LSJ (Oxford, 1968) corrects the citation of Aratus and that *ιουλῶδης* has been changed from “scolopendra-like” to “millipede-like.”

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TWO NOTES ON THE *ANTHOLOGY*

The first passage for consideration is by Macedonius (*Anth. Pal.* 5. 225):

“Ἐλκος ἔχω τὸν ἔρωτα· ῥέει δέ μοι ἔλκος ἰχώρ,
δάκρυον, ὡτειλῆς οὐποτε τερσομένης.
εἰμὶ καὶ ἐκ κακότητος ἀμήχανος, οὐδὲ Μαχάων
ἦπιά μοι πάσσει φάρμακα δευομένῳ.
Τήλεφός εἰμι, κόρη, σὺ δὲ γίνεο πιστὸς Ἀχιλλεύς.
κάλλεϊ σὺ παῦσον τὸν πόθον, ὡς ἔβαλες.

Just as Achilles alone had the power to cure Telephus whom he had wounded, so it is the poet's girl alone who has the power to cure him of the wound she has inflicted—a common motif in erotic poetry (e.g., Prop. 2. 1. 63; Ov. *Am.* 2. 9. 7, *Rem.* 47, *Trist.* 5. 2. 15). The most familiar element in the story is Telephus' supplication of Achilles in rags; thus Achilles' cooperation might have been described as generosity, kindness, humanity, or something similar—but never loyalty (5 πιστός). “O sei mir ein treuer Achilles” (Beckby) is a rare but possible meaning for πιστός which would however imply that curing people with rusty swords was a standing characteristic of Achilles. I had long ago jotted down πικρός in my margin before noticing that this was evidently what Macedonius contemporary and friend Paul the Silentiary read. Compare his imitation of this very poem: Τήλεφον ὁ τρώσας καὶ ἀκέσαστο· μὴ σὺ γε, κόρη, / εἰς ἐμὲ δυσμενέων γίνεο πικροτέρη (*Anth. Pal.* 5. 291. 5–6). Πικρός in 5. 225. 5 would be functional rather than merely decorative: if even the cruel Achilles could cure his enemy. . . . Paul's πικροτέρη clearly builds on the implication that Macedonius' girl is more πικρός than Achilles if she refuses to play nurse.

The last line is also surely corrupt. A literal version would run “assuage with your beauty the desire, as you struck.” The sense required is surely “assuage with your beauty the desire with which you struck me.” And the Greek for this, changing only one letter, is κάλλεϊ σὺ παῦσον τὸν πόθον ᾧ μ' ἔβαλες. μ' appears to be one of the elisions that did not trouble the fastidious *Cycle* poets.¹

The second passage is attributed to a shadowy but presumably first- or second-century figure called Dionysius Sophistes (*Anth. Pal.* 5. 81):

ἢ τὰ ῥόδα, ῥοδόεσσαν ἔχεις χάριν. Ἀλλὰ τί πωλεῖς;
σαυτήν ἢ τὰ ῥόδα ἢ συναιμότερα;

*Ῥόδα in line 2 exhibits two major metrical anomalies in one word: hiatus and

1. D. L. Page (ed.), *The “Epigrams” of Rufinus* (Cambridge, 1978), p. 34.