

BIBLIOGRAPHY.

B.C.
Cent. IV. ARISTOTELES, born about 385, died 322 B.C.

De Animalibus Historiæ. Libri x. (Jo. Gottlob Schneider, Lipsiæ, 1811). These *ιστορίαι περὶ τὰ ζῶα* were probably published within the last thirteen years of their author's life. After his writings had met with sundry changes and chances, there is reason to believe "that about 50 years B.C. Andronicus produced the first edition of the collective works of Aristotle." See *The Ethics of Aristotle*, by Sir Alexander Grant, 1874, p. 9.

The passages in Aristotle which probably refer to the Amphipoda are the following:—Book iv. ch. 2, Τῶν δὲ μαλακοστράκων ἓν μὲν ἐστὶ τὸ γένος τὸ τῶν καράβων καὶ τούτῳ παραπλήσιον ἕτερον τὸ τῶν καλουμένων ἀστακῶν. Οὗτοι δὲ διαφέρουσι τῶν καράβων τῷ μὴ ἔχειν χηλὰς καὶ ἄλλας τινὰς διαφορὰς οὐ πολλὰς. "Ἐν δὲ τὸ τῶν καρίδων, καὶ ἄλλο τὸ τῶν καρκίνων. Γένη δὲ πλείω τῶν καρίδων ἐστὶ καὶ τῶν καρκίνων τῶν μὲν γὰρ καρίδων αἵ τε κυφαὶ καὶ αἱ κραγγόνες καὶ τὸ μικρὸν γένος αὐταὶ γὰρ οὐ γίνονται μείζους. Of the Malacostraca one genus is that of the carabi, and near to this a second of those called astaci. These differ from the carabi in not having chelæ, and in a few other points. One genus is that of the carides, and another that of the carcini. There are several genera of the carides and of the carcini; for to the carides belong the gibbæ and the crangons, and *the little genus*; for these grow no bigger. Book iv. ch. 10, a passage, unfortunately incomplete, relating to the sleep of fishes and other water animals that have no eyelids: 'Αλίσκονται γὰρ οἱ ἰχθύες, εἰ μὴ διὰ τοὺς φθειράς καὶ τοὺς καλουμένους ψύλλους . . . [οὕτως ἀτρεμίζοντες,] ὥστε κὰν τῇ χειρὶ λαμβάνειν ῥαδίως· νῦν δ' ἂν χρονίσωσι οὗτοι τῆς νυκτὸς, κατεσθίουσι προσπίπτοντες πολλοὶ τὸ πλῆθος ὄντες. Γίνονται δ' ἐν τῷ βυθῷ τῆς θαλάττης καὶ τοσοῦτοι τὸ πλῆθος, ὥστε καὶ τὸ δέλεαρ ὃ τι ἂν ἰχθύος ᾖ, ἐὰν χρονίσῃ ἐπὶ τῆς γῆς, κατεσθίουσι καὶ ἀνέλκουσι πολλάκις οἱ ἀλιεῖς περὶ τὸ δέλεαρ ὡσπερ σφαῖραν συνεχομένων αὐτῶν. For fish, unless [they are disturbed] by the lice and so-called fleas, are surprised in so tranquil a condition as to be easily taken even in the hand. But now if these are left [in the nets] during the night, they (the fleas) being many in number fall upon and devour them. In the deep of the sea they grow in such multitudes that any piece of fish for bait, if left long on the ground, they devour. And often the fishermen draw up round the bait as it were a globe of them clinging to it.

Gerstaecker thinks that *the little genus* of the first passage may well refer to such an Amphipod as *Gammarus locusta*. Boeck considers that the ψύλλοι of the second passage, which eat the fish in the nets, are also likely to be Amphipods, since in the northern seas these act exactly in the way described. The statements of Klein and Holbøll confirm this. As Aristotle apparently speaks of the bait on land, "ἐπὶ τῆς γῆς," being eaten by these creatures, it is likely enough that he alludes to more than one species; unless, as Bellon evidently supposed, the land intended be not dry land or shore, but the ground at the bottom of the sea.