

The microscopic structure of the Integumentary Skeleton is discussed ; the process of moulting described ; the fact noticed that the Amphipoda do not appear to be capable of throwing off a wounded limb ; the "auditory cilia" of the upper antennæ are considered ; the denticle at the base of the lower antennæ is regarded as an olfactory organ ; this is now generally recognized as a duct for the excretion from the antennary gland. The internal structure of an Amphipod is very fully described. Some remarks are made upon the development of the young. The paper concludes with a list of all the then known British species, including many new ones in various genera to be subsequently described. The names which do not reappear, or reappear with important changes, in Mr. Spence Bate's list in 1857, are as follows :— *Montagua dubius*, perhaps represented by "*Montagua Alderii*;" *Scopelocheirus breviatus*, for which appears *Scopelocheirus crenatus* ; "*Amanonyx Guerinianus*," omitted ; *Westwoodia coeculus*, altered to *Westwoodia coecula* ; *Westwoodia carinatus*, altered to *Krøyeria carinata* ; *Gammarus elegans*, altered to *Urothoë elegans* ; *Thersites Guilliansonia*, altered to *Thersites Guilliansoniana* ; *Podocerus pelagicus*, Edwards, omitted ; *Siphonocetus dubius*, omitted ; *Læstrigonus Fabreii*, Edwards, omitted ; *Ægina longispina*, Krøyer, referred to Dana's genus, *Protella* ; *Caprella lævis*, Goodsir, omitted ; *Caprella acanthifera*, Leach, placed as a synonym of "*Caprella acuminifera*, Edwards ;" *Caprella acutifrons*, Desm., omitted ; *Caprella phasma*, Latr., omitted, "*C. Phasma?* (Latr.)," being given as a synonym to *Protella longispina*.

Plates xii. to xxii. give valuable illustrations of the structure, both external and internal of the Amphipoda. They do not, however, supply the want of descriptions, so as to give any scientific value to the names of new genera and species here first published. On plate xvi. the terms applied by Milne-Edwards to the seven joints of a leg or equivalent appendage are contrasted with their abbreviated equivalents as used by Mr. Spence Bate, (1) *Coxopodite* shortened to *coxa*, (2) *Basopodite* to *basis*, (3) *Ischiopodite* to *ischium*, (4) *Meropodite* to *meros*, (5) *Carpopodite* to *carpus*, (6) *Propodite* to *propodos*, (7) *Dactylopodite* to *dactylos*.

In view of their forthcoming work on the British Sessile-eyed Crustacea, the following Table was drawn up in concert by Messrs. Bate and Westwood on this occasion :—

Classis CRUSTACEA. Subclassis I. MALACOSTRACA.
EDRIOPHTHALMA (Legio II).

Order.	Division.	Subdivision.	Group.	Tribe.	Family.	Division.	Subfamily.	Genus.
Amphipoda,	Normalia,	Gammarina,	Vagantia,	Saltatoria,	Orchestidæ,	Nidifica,	Podocerides,	Orchestia.
				Natatoria,	Coroppiidæ,			1. Stegocephalides,
			2. Lysianassides,					
			3. Tetromatides,	Tetromatus.				
			4. Pontoporeides,	Sulcator.				
			5. Gammarides,	Gammarus.				
			6. Leucothoides,	Leucothoë.				
			Domicola,	Tubifica,	Cerapides,			Siphonocetus.
			Hyperina,	Cheluridæ,	Hyperida,			Hyperia.
Phronimidæ,	Phronoma.							
Typhidæ,	Typhis.							
Aberantia,	Caprellidæ,	Caprella.						
Isopoda,	Normalia.							
	Aberantia.							