fossils from the Limestone, and indicates those species which occur in the Limestone of Kildare, the Leptana-Limestone of Sweden, and Stage F of the East Baltic provinces. As a result of his researches he concludes that the fauna has a thoroughly Ordovician facies; that it is closely comparable with that of the Limestone of the Chair of Kildare, and of the Leptana-Limestone, and less closely with that of Stage F of the East Baltic provinces; that its palæontological features point to its stratigraphical position being at the base of the Upper Bala, and that it must be regarded as the locally thickened development of a bed which is elsewhere in Great Britain very thin, or entirely absent, or represented by beds having different lithological characters and a different fauna; and that the fauna has certain unique characters which mark it off from all other known assemblages of fossils in Great Britain.

## MISCELLANEOUS.

"The most pious priority purist" on the Lobster, the Crayfish, and Professor Bell. By the Rev. THOMAS R. R. STEBBING, M.A., F.R.S., F.L.S.

PROFESSOR BELL, in the 'Annals' for December 1896, has very obligingly undertaken, for the benefit of "priority-claimers" in general and as a warning to the 'Athenæum' in particular, to comment on some of the names and dates in my ' History of Crustacea.' In his essay there are some pleasing autobiographical touches. He begins by reminding the reader that in 1891, with regard to the name Holothuria, he established a precedent, to be a beacon-light to all zoologists in the present and a rule of conduct for future generations. In the course of his paper, while dealing with questions that are absolutely bibliographical, he naively says "I am no bibliographer "-a remark which might have been set down as a flourish of rhetorical modesty, had it not been surrounded by the corroborative evidence of his general argument. His conclusion needs no gloss: "I have taken," he says, "a great deal of trouble with this case, and I have a suspicion that if a few more would be equally 'eingehende' we might speedily give the purists the short shrift I have often wished them."

The criticism which leads up to this terror-striking sentence must now be examined in detail. "First," says the professor, "as a matter of accuracy in dates and names: on p. 202 of Mr. Stebbing's work already referred to, 'Nephrops, Leach, 1819,' should have the date corrected to 1814." This, I eagerly admit, is a really meritorious performance on Professor Bell's part. He does not say whence he obtained the date 1814, but it may be inferred that he derives it from the mention of Nephrops in Brewster's 'Edinburgh Encyclopædia,' vol. vii. pp. 398, 400. The date of Leach's article "Crustaceology" in that volume is 1814, or perhaps 1813. Under "Genus XLI. Astacus," Leach, introducing his own name as if it were that of a stranger, remarks that "In A. gammarus and fluviatilis the external antennæ are simple, in norvegicus furnished with a scale at their external base : this last is considered as a distinct genus by Mr. Leach, under the name of Nephrops, from the kidney-shaped eye." Then follows the account of "Sp. 1. Gammarus," and two pages further on come the accounts of "Sp. 2. Fluviatilis," and "Sp. 3. Norvegicus," the synonymy of the last being " Cancer norwegicus of Linné, Astacus norwegicus of Pennant, and Nephrops norvegica, Leach's MSS." Thus Leach's genus Astacus, in 1814, contained three species, not two only as Prof. Bell wishes us to believe. The next genus is "XLII. THALASSINA." Nephrops is nowhere included in the count. When considering the question some years ago, I was clearly of opinion that Leach did not here establish the genus Nephrops, and, to pursue the autobiographical method, I am of the same opinion still. No doubt he gives a strong hint that he thinks it ought to be established. But the contumely and struggle for existence to which many of his now accepted genera were in their earlier days exposed may explain his reluctance in this instance to do what he thought right. In the Trans. Linn. Soc. vol. xi. 1815, and in part 7 of his 'Malacostraca Podophthalmata Britanniæ,' published Jan. 1, 1816, he takes courage and definitely adopts the genus Nephrops, the date of which should therefore be neither 1819 nor 1814, but 1815, as it has been already some time back correctly given by the American writer, Dr. F. H. Herrick.

Next he says "'Astacus, Leach, 1814,' on the same page [Hist. Crust. 202], should be altered to—well, it is hard to say; Leach's Astacus of 1814 is the Astacus of Gronovius (1764) as emended by Fabricius and others, and by Leach's removal of A. norvegicus." This is led up to by an earlier paragraph as follows:—"Leach's genus Astacus, in 1814, contained two species —A. gammarus and A. fluviatilis. The former stood first, and is therefore, I presume, regarded as the 'type species'; on this I would remark that the generic name Astacus was invented by Gronovius in 1764 and that his first species is clearly Cancer fluviatilis of Linnæus."

On this I would remark that in 1814 Leach had not removed A. norvegicus from Astacus, but made it the third species of that genus, and that the generic name Astacus was not invented by Gronovius in 1764, and that it was not invented by Gronovius at all. Seeing that he was already using it in 1760, he could not have invented it in 1764. It is amusing to find Professor Bell quoting such a date without the least intimation that so lately as 1890 (see Geol. Mag., Dec. 1896, pp. 557-8) high officials in his own museum would have disputed its relevancy. At that time 1766 was still regarded there as the beginning of all things in zoological nomenclature. With good reason an earlier date for that beginning is now finding acceptance, but no decisive ordinance on the subject has yet been promulgated, so that professors and official dignitaries above all ought to deal tenderly with outsiders helplessly suffering from this "centre of wobbulation." Waiving, however, any appeal ad misericordiam, we turn to the selected authority Gronovius, and then a wonder comes to light, or what might have been a wonder and might have been a discovery, had it not been

Ann. & Mag. N. Hist. Ser. 6. Vol. xix.

a thing notorious, a piece of elementary knowledge in this line of research, that Gronovius is in no sense an authority for Linnean nomenclature. He is as much a pre-Linnean in regard to names as if he had written in the seventeenth instead of in the eighteenth century. He does not name his species, but gives definitions. He still uses the cumbrous method, from which it was the great glory of Linnæus to relieve zoology. But, whether Gronovius be deemed to be within or without the era of Linnean terminology, whether he be an authority or not, there is something almost comic in the notion that he invented the generic name Astacus. Seba, who, though not a binominalist, at least gives names to some of his species, in the third volume of his 'Thesaurus,' which has 1758 on the titlepage, has several Astaci scattered about, the first-mentioned being "Astacus fluviatilis, Americanus," not a crayfish, but a prawn, and the second "Astacus marinus, Americanus," the American lobster. Any one who may nevertheless fancy that Seba borrowed Astacus from Gronovius should consult the 'Fauna Suecica' of Linnæus, 1746. On page 358 will be found the two numbers, 1248, 1249, each referring to a "Cancer macrourus," dealt with in the pre-Linnean or Gronovian style, without a specific name, though clearly distinguished by the synonymy, the characters, and various observations: the first as a lobster, the second as a crayfish. The synonymy of the first in an unbroken column reiterates the name Astacus from a long line of authors: Astacus, Astacus, Astacus, Astacus, Astacus verus, Astacus marinus communis, and then Astacus marinus five times over. There is a touching appeal against future misnomers in that Astacus verus of Aldrovandi. The reason for assigning Astacus to Leach rather than to one of his predecessors is obvious. The earlier science grouped under it not only lobsters and crayfishes, but many incongruous forms. For example, out of the 13 species which Gronovius brings together, the three which he figures correspond apparently to Palæmon faustinus de Saussure, Atya scabra Leach, and Corophium volutator Pallas, two prawns and an amphipod. Fabricius, though he decently begins with Astacus marinus, has an equally miscellaneous Leach, in 1814, began a more reasonable delimitation. group. In strictness, no doubt, the name of the lobster's genus should be given as Astacus (Fabricius, 1775), Leach, 1814, s. r.; the conciser form which I have used will, in an unpretentious manual, for its brevity's sake, pass muster with all but professors.

One other correction of the history of Crustacea is proffered by Professor Bell. He says "'Potamobia, Leach, 1819' (p. 207), should read Potamobius, Samouelle, 1819 [preocc. by Leach]." While busy over his Gronovius, he has failed to observe my own correction of Potamobia into Potamobius, made with acknowledgments to Miss Rathbun on page 40 of 'Natural Science' for last July. The rest of his correction is doubly wrong. Neither was Samouelle the parent of Potamobius, nor was that name in 1819 preoccupied by Leach or anyone else. Samouelle, in the 'Entomologist's Useful Compendium,' 1819, shows by acknowledgments in the Dedication, the Preface, and the body of the work that the account which it contains of the Crustacea is simply due to Dr. Leach. It would be just as reasonable to write Astacus, Brewster, 1814, or to assign any other genera established in the article "Crustaceology" to the editor of the 'Encyclopædia,' as it would be to follow Professor Bell in ascribing "Genus 27. Potamobius, Leach's MSS.," to Samouelle, the editor of the 'Compendium' in which it first appears. It is quite a misconception to suppose that Potamobius was preoccupied. In 1818 Dr. Leach had given the name Potamobie in a list of crustacean genera, but the name being given only in French is not of any scientific importance, and if it were, it is not Potamobius; and if it were Potamobius, it is unaccompanied by any description, and therefore, as Professor Herrick had already explained in 1895, it is a nomen nudum. It does not count; it can neither do good nor harm; it does not preoccupy.

We are told in a fine phrase that "zoologists at large" between 1823 and 1837 were content to accept the opinion of Desmarest on the subject of Astacus. Perhaps they were, but it is difficult to see what that has to do with the matter in hand. Zoologists at large are a careless lot. Desmarest both in 1825 and 1830 gives Astacus marinus, the lobster, precedence over Astacus fluviatilis, the cravfish. He accepts Leach's genus Nephrops, and would probably have accepted Leach's Potamobius, had he ever heard of it. From his silence on the point it may be inferred that he never had. It was he, no doubt, who by incautious language misled Professor Bell into supposing that the generic name Astacus was invented by Gronovius. Professor Bell in turn makes the insidious suggestion that some one should invent a name to replace Potamobius. It is dreadful to think that before this answer can appear someone may have already done it, tempted, like Herostratus, who burned down the Ephesian temple, by the grandeur of the infamy, for we are told that "the inventor will throw into confusion not only carcinological literature, but every text-book in every language under the sun." How I tremble for those poor dear text-books. induced, perhaps, to change a name or two after peacefully copying one another for half a century, or to alter a sentence in the tenth edition of a stereotyped volume! It would wring tears of anguish from the stoniest heart. Even some museum labels may have been hastily torn up, rewritten, or reprinted, only to be once more cancelled. But I forbear to pursue the harrowing theme. In assigning the generic name Astacus to the lobster, and Potamobius to the crayfish, my fortunate part has been to maintain the authority of two men eminently distinguished in connexion with the British Museum, Dr. William Elford Leach and Mr. Adam White. The latter upholds the names established by his great predecessor, both in his 'List of the British Crustacea in the British Museum,' published by order of the trustees in 1850, and in his own ' Popular History' of the same group published in 1857. I do not ask that esprit de corps should consecrate error, but when the truth happens to be the heritage of one's own household, it seems a mistaken policy to turn it out of doors.

Tunbridge Wells, Dec. 21, 1896.



Stebbing, Thomas R. R. 1897. ""The most pious priority purist" on the lobster, the crayfish, and Professor Bell." *The Annals and magazine of natural history; zoology, botany, and geology* 19, 120–123. https://doi.org/10.1080/00222939708680512.

View This Item Online: <a href="https://www.biodiversitylibrary.org/item/63495">https://doi.org/10.1080/00222939708680512</a> Permalink: <a href="https://www.biodiversitylibrary.org/partpdf/59609">https://www.biodiversitylibrary.org/partpdf/59609</a>

**Holding Institution** University of Toronto - Gerstein Science Information Centre

**Sponsored by** University of Toronto

**Copyright & Reuse** Copyright Status: NOT\_IN\_COPYRIGHT

This document was created from content at the **Biodiversity Heritage Library**, the world's largest open access digital library for biodiversity literature and archives. Visit BHL at https://www.biodiversitylibrary.org.