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**Additions and amendments to the
*Distribution of the marine molluscs of
north west Europe*
(1990)**

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Additions and Amendments to the
DISTRIBUTION OF THE MARINE MOLLUSCS OF NORTH WEST EUROPE

D R SEAWARD

The work of the Conchological Society's marine census was brought together and published in 1982 as the Sea Area Atlas of the marine molluscs of Britain and Ireland (ed., D R Seaward) comprising 746 dot maps for all the marine and brackish-water species. In the absence of any comprehensive and modern nomenclature, the names and taxonomic order used were fairly conservative.

By 1990 it was necessary to update the Atlas to incorporate the large amount of additional data thereby stimulated, and the opportunity was taken to widen the area covered to include the adjacent North Sea and continental coasts from Bergen to Brest. To assist comparison with the Atlas the same species arrangement and names were used, but names appearing in modern British and European checklists were now incorporated where different. Extending the area has increased the number of species to well over 1000. This work was published in December, 1990 as the Distribution of the marine molluscs of north west Europe (ed., D R Seaward) [MMNWE].

A new datum has now been drawn in the Society's marine census at 1 January 1991, separating pre-1991 and post-1990 records (see below). MMNWE will be regarded as describing the distribution of marine molluscs pre-1991. It is necessary to add records accruing between preparation and publication of MMNWE and the opportunity is thus afforded to make a few other additions and amendments.

Accordingly, this update includes the following:

1. A concordance with the Checklist of British marine mollusca of 1991 by Smith & Heppell [S&H, 1991], covering differences between that work as published and the draft version used in the preparation of MMNWE.
2. Amends the North Sea/Baltic boundary, and properly incorporates the important work of the two Wikander surveys off south Norway [MFS].
3. Adds pre-1991 records notified to the Marine Recorder, or confirmed, too late for inclusion in MMNWE.
4. Incorporates errata.

These are detailed below.

NOMENCLATURE

There was collaboration between the authors of MMNWE and the Smith & Heppell Checklist (S&H, 1991) during the long preparation of both works; Smith & Heppell provided a draft and their species names were included in MMNWE.

To simplify comparison with the Atlas, MMNWE repeated the Atlas reference i.e., species number and name, and this was shown in bold at the head of each entry. Where the draft copy of the Smith & Heppell Checklist introduced a different species name, this immediately followed in italics and in parentheses.

It was anticipated (MMNWE, p. 102) that the Smith & Heppell Checklist when published may vary in detail from the draft copy used, and in the event there are over thirty changes in genus or species name listed below in this amendment. Changes at higher taxa levels are not noted here. The list below covers all those species where an amendment is necessary; the MMNWE reference is given first in bold, followed by the S&H, 1991 name if different.

Besides quoting the names used in the draft Smith & Heppell Checklist, MMNWE also refers to those appearing in the 1987 Smith and Howson Checklist published by the Marine Conservation Society as part of the Directory of the British marine flora and fauna, giving the species name used there where different. That list is now widely used but it should be realised that there are considerable changes in S&H, 1991, which supersedes the Smith and Howson 1987 Directory list.

The Conchological Society has now adopted S&H, 1991 for the marine census and the Checklist names are used on the new recording card and elsewhere.

Although it is to be hoped that this will provide a welcome period of stability in nomenclature, there is still considerable disagreement with some other European lists, and the tenth Congress of Unitas Malacologica at Tübingen in 1989 set up a working group charged with producing a Checklist of the European Marine Mollusca (CLEMAM), to include the Mediterranean and northeast Atlantic. However it will no doubt be many years before it is published, and it is indeed fortunate that we now have the benefit of Smith & Heppell, 1991.

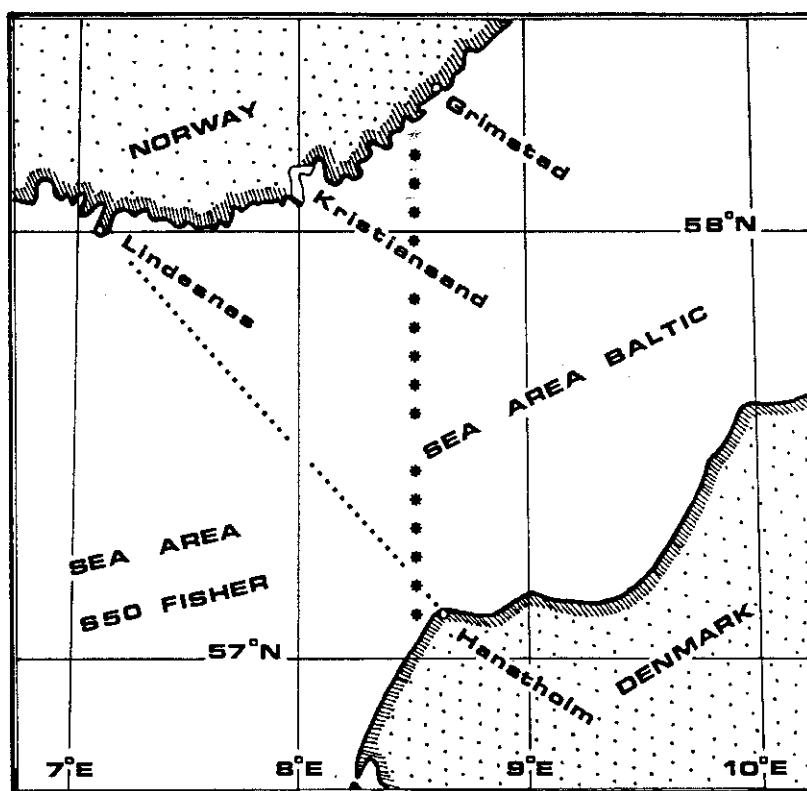
S50 FISHER, and SKAGERRAK

At a late stage in the preparation of MMNWE, a species list only from Part 1 of the survey of south Norway (Wikander, 1989) came to hand and was incorporated, the whole area being taken

as within S50 Fisher (see comment in reference to Wikander, 1989 on p. 104 of MMNWE). Subsequently a copy of the whole of the first part together with Part 2 of the survey (Wikander, 1990) has become available, considerably enlarging knowledge of marine molluscs at the entrance to the Baltic off south Norway.

The eastern boundary of sea area S50 Fisher with the Baltic, as shown in Heath & Scott (1972, p. 25) and defined in MMNWE ('line joining Lindesnes to Hanstholm') is unsatisfactory and not amenable to computerised mapping. Dr Jorgen Knudsen of the Copenhagen Museum, who is preparing a checklist of Danish marine molluscs, agrees (pers. comm.) that while not a zoogeographical boundary, the longitude $08^{\circ} 30'$ would be a more practicable boundary to define S50 Fisher and the Baltic area.

This new eastern boundary is indicated on the map below as a line of large dots along longitude $08^{\circ} 30'$, replacing the previous boundary which is shown by the line of small dots between Lindesnes and Hanstholm.



Accordingly this amendment is incorporated below, and records from Wikander's two surveys of 1989 and 1990 [MFS] from west of $08^{\circ} 30'$ are added while those east of this line are deleted.

ADDITIONAL RECORDS

The marine recording scheme has used three date categories, separating pre-1900, 1900-1950, and post-1950 records (although

the Atlas (Seaward, 1982) and MMNWE simplified these to two). For various reasons it is considered necessary to begin a new date category, and the publication in December 1990 of MMNWE, which was intended to provide a datum for future work, provides the opportunity and terminus. The new date class starts on 1 January 1991. Many new or overlooked records dated before the end of 1990 but received or confirmed too late for inclusion or since publication are added below.

The marine recorder (see below for address) will be grateful for new information of whatever date; significant additions or amendments will be published from time to time in the Society's publications.

ERRATA

Errors are corrected in the listing below.

SYMBOLS and ABBREVIATIONS

Record categories are denoted by the same symbols as used in MMNWE, i.e.,
+ = live record, post-1950 and pre-1991
@ = live record, pre-1951
¢ = shell only, any date pre-1991

Sea areas are designated by the letter 'S' followed by the area number; they are defined in MMNWE.

MMNWE = marine molluscs of north west Europe (Seaward, 1990)

S&H, 1991 = Smith and Heppell, 1991

MFS = marine fauna of the Skagerrak (Wikander, 1989; 1990)

MMNWE page ref.	Ref. in MMNWE	Comment/Addition/Amendment
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2. **Marine Recorder address.** The Marine Recorder is now Jan M. Light, 88 Peperharow Road, Godalming, Surrey, GU7 2PN, to whom records should be sent.
- " **Conchological Society.** General correspondence should be addressed to the Hon. Secretary, Mrs S. Davies, 5 The Deans, Portishead, Bristol, Bristol, BS20 8BG.
9. **Sea Areas map.** Area S50: amend eastern boundary to a line joining north coast of Denmark to south coast of Norway along longitude 08°30'E (see explanation on p. 2).
10. **Viking (West) Sea Area.** Amend number to read 'S4W'.

12. **S50 FISHER.** Delete 'line joining Lindesnes to Hanstholm'; insert '08°30'E'
- " . **S52 TEXEL.** Peripheral Sea Area names are from Heath & Scott (1972, 24-5), but note that the island of Texel is just excluded from S52 as defined, being within the adjacent S51 German Bight, so that the name is misleading. However, it has been in use for many years, and I have not considered it necessary to change.
14. 4. **Neomenia carinata.** Line 6: amend 'S35' to 'S36'.
15. 12. **Lepidopleurus scabridus.** (**Leptochiton scabridus.**) Map: add 'S36 +(Strack, 1991)'.
- " . 14. **Hanleya hanleyi.** Map: add 'S19 @(Turk, 1991)'.
- " . 16. **Tonicella rubra.** Line 9: add 'S20'.
- " . -. **Ischnochiton exaratus.** Dist: add 'S50 +(MFS, as Stenosemus)'.
16. 24. **Scissurella crispata.** Now Anatoma crispata(Fleming) in S&H, 1991.
- " . 25. **Emarginula reticulata.** (**E.fissura.**) Map: add 'S37 +(J D Nunn)'.
- " . 26. **Emarginula conica.** Line 1: amend 'Lamarck' to 'Schumacher'. Now E.rosea Bell in S&H, 1991.
- " . 27. **Emarginula crassa.** Line 7: delete 'S30'.
- " . 28. **Puncturella noachina.** Line 7: amend 'S31' to 'S32'.
17. 33. **Patina pellucida.** (**Helcion pellucidum.**) Lines 3-4: delete 'S50 +(MFS)'.
- " . 36. **Lepeta caeca.** Map: add 'S48 ♀(Scot Mar Biol Ass/S M Smith)'.
- " . 38. **Propilidium exiguum.** Map: add 'S48 ♀(Scot Mar Biol Ass/S M Smith)'.
- " . -. **Cocculina corrugata.** Now Copulabyssia corrugata(Jeffreys) in S&H, 1991.
- " . -. **Cocculina spinigera.** Now Coccopigya spinigera(Jeffreys) in S&H, 1991.
- " . 40. **Margarites helycinus.** Map: add 'S50 +(MFS)'.
18. 41. **Margarites groenlandicus.** (**M.striatus.**) Map: add 'S50 +(MFS)'.

- " 46. Calliostoma zizyphinum. Line 7: add 'Shells from S10'.
19. 55. Cantharidus montagui. (Jujubinus montagui). Line 9: after 'S33' add 'S32'.
- " 58. Monodonta lineata. Map: add 'S27 @(Stelfox, 1936); S29a +, supplementing data at a limit of range(Blackler & McMillan, 1953)'. Line 8: amend 'S16' to 'S15'.
- " 59. Skenea basistriata. (Lissospira basistriata). Map: add 'S32 ♀(Brit Geol Surv)'.
- " -. Ganesa nitidiuscula. Dist: add 'S48 ♀(D W McKay)'.
- " -. Ganesa pruinosa. Now Granigyra pruinosa(Jeffreys) in S&H, 1991.
- " -. Skenea valvatoides. Dist: add 'S48 ♀(D W McKay)'.
- " 60. Skenea serpuloides. Map: add 'S19 +(Turk, 1991)'.
20. 61. Skenea nitens (contd. from p. 19). (Dikoleps nitens). Lines 9-10: delete reference to S29 record requiring confirmation; specimen has been checked and is satisfactory (S M Smith). Line 12: delete 'S18'.
- " 67. Lacuna parva. Line 2: delete 'S50 +(MFS)'.
- " 68. Lacuna pallidula. Line 3: delete 'S50 +(MFS)'.
- " 69. Littorina littorea. Map: add 'S19 +(Turk, 1991)'.
21. 71. Littorina arcana. Map: add 'S6 +(Knight & Ward, 1991)'.
22. 80. Hydrobia neglecta. Map: add 'S55 +(Barnes, 1991), the first record from continental Europe outside Denmark where it occurs under Baltic rather than North Sea influence'.
- " -. Hydrobia stagnorum. Now Heleobia stagnorum(Gmelin) in S&H, 1991.
- " 81. Hydrobia ulvae. Map: add 'S50 +(MFS)'.
- " 82. Hydrobia ventrosa. Now Ventrosia ventrosa(Montagu) in S&H, 1991. Map: add 'S23 +(R S K Barnes); S50 +(MFS)'.
- " -. Potamopyrgus jenkinsi. (P. antipodarum). Map: add 'S50 +(MFS)'.
- " 86. Cingula alderi. Now Obtusella alderi(Jeffreys) in S&H, 1991. Line 10: delete 'S35'.

23. 91. Onoba aculeus. Map: add 'S21 ϕ (Smith, 1991, 428)'.
 ". 95. Alvania beani. Line 12: delete 'S18'.
24. 100. Alvania punctura. Line 10: add 'S27'.
- " 105. Rissoa parva. Map: add 'S13 +(I J Killeen)'. Line 11: add 'S2'. Line 16: amend '(Kanmacher)' to '(J Adams)'.
25. 107. Rissoa albella (contd. from p. 24). (Pusillina sarsi). Line 2: amend 'S23' to 'S22'.
- " 110. Rissoa lilacina. Map: delete 'S50 +(MFS)'; add 'S16 +(D R Seaward)'.
- " 112. Rissoa porifera. (R.lilacina subsp. porifera). Line 2: amend 'R.rufilabrum' to 'R.lilacina'.
- " 113. Rissoa membranacea. Map: add 'S50 +(MFS); S19 +(S M Turk)'. Line 20: delete 'S19'.
26. 115. Cingulopsis fulgida. (Eatonina fulgida). Line 8: amend 'S22' to 'S21'.
- " 118. Rissoella diaphana. Line 9: delete 'S9'. Line 10: amend 'S23' to 'S22'.
27. 126. Tornus subcarinatus. Line 12: add 'S24, S25, S29a, S35, S36, S37'.
- " 129. Caecum imperforatum. Line 1: delete 'auctt., non'. S&H, 1991 revert to imperforatum as the accepted name, with trachea as synonym.
- " -. Caecum armoricum. S&H, 1991 include this as a synonym of 130 C.glabrum following Aartsen's 1977 revision of the genus, but they have overlooked the subsequent paper by Aartsen & Hoenselaar of 1984; Aartsen confirms (pers. comm. 20 July 1991) that he regards armoricum as 'a good species, different from C.glabrum as well as from C.auriculatum'. C.armoricum is thus retained as a separate species.
- " 130. Caecum glabrum. Line 13: add 'S29'.
28. 132. Mathilda quadricarinata. The only record is of a specimen from S44 now withdrawn by S M Smith. Delete record and species.
- " 135. Cerithiopsis tubercularis. Line 5: delete 'S50 +(MFS)'.
- " -. Cerithiella danielssoni(Watson). Amend species name to 'Cerithiella danielsoni(Friele)'.

- . - . Cerithiella macrocephala Dautzenberg & Fischer. Add deep water species from S&H, 1991 not in MMNWE. Dist: S48 c(Scot Mar Biol Ass/S M Smith).
- 29. 141. Laiocochlis granosa. Line 2: amend to 'Laeocochlis macandraeae'.
 - ". 144. Triphora pallescens. (Cheirodonta pallescens). Map: add 'S19 c(Specimens in National Museum of Wales/S M Turk)'.
 - ". 150. Clathrus clathratulus. (Epitonium clathratulum). Line 2: amend 'clathrathulum' to 'clathratulum'. Map: add 'S48 c(Scot Mar Biol Ass/S M Smith)'. Line 6: amend 'S19 c' to 'S19 +(Turk, 1991)'.
 - ". 151. Janthina janthina. Line 4: insert 'c' after 'S29a'.
- 30. 154. Graphis albida. Map: add 'S22 +(Light & Killeen, 1991)'. Line 15: delete 'S22'.
 - ". 156. Aclis minor. Map: add 'S50 +(MFS); S18 +(Fretter & Shale, 1973)'. Line 6: delete 'S18'.
 - ". - . Aclis glabra. Synonym of Hemiaclis ventrosa (157 Aclis ventrosa) in S&H, 1991).
 - ". 159. Pherusina gulsonae. Now Aclis gulsonae in S&H, 1991.
- 31. 162. Eulima trifasciata. (E.bilineata). Line 5: delete 'S50 +(MFS)'.
 - ". 165. Balcis lubrica. (Melanella lubrica). Map: add 'S50 +(MFS)'.
 - ". 166. Balcis sinuosa. Now Polygireulima polita(L.) in S&H, 1991.
 - ". 168. Balcis frielei. (Melanella frielei). Map: add 'S50 +(MFS); S48 c(Scot Mar Biol Ass/S M Smith)'.
- 32. 171. Balcis monterosatoi. (Polygireulima monterosatoi). Map: add 'S50 +(MFS)'.
 - ". 176. Trichotropis borealis. Map: add 'S48 c(Scot Mar Biol Ass/S M Smith)'.
- 33. 180. Aporrhais pespelecani. Line 3: amend 'S50 @(JK)' to 'S50 +(MFS)'. Line 8: add 'S44'.
 - ". 185. Natica pallida. (Polinices pallidus). Line 8: amend 'S5' to 'S6'.

- " . 186. Natica fusca. (Polinices fuscus). Line 6: amend 'S24' to 'S25'.
- " . 189. Natica montagui. (Polinices montagui). Map: add 'S48 +(Scot Mar Biol Ass/S M Smith)'.
- " . -. Neverita obtusa. Now Polinices obtusus(Jeffreys) in S&H, 1991.
- " . 191. Velutina velutina. Line 3: delete 'S50 +(MFS)'.
- 34. 195. Lamellaria latens. Line 11: delete 'S28'.
- " . 196. Erato voluta. Line 6: amend 'S3' to 'S2'.
- " . 197. Trivia arctica. Line 9: amend 'S24' to 'S25'.
- " . 200. Galeodea rugosa. Line 4: amend 'S19 @' to 'S19 ¢'.
- 35. 210. Ocenebra erinacea. Line 10: add 'Shells from S24, S25'.
- 36. 215. Volutopsius norwegicus. Map: add 'S8 +(S J Kreps)'.
- " . 216. Colus islandicus. Map: add 'S3 +(Dep. Ag. & Fish. Scot.); S4W +, S5 +, S10 +, S39 +(J P Kreps)'. Line 8: delete 'S2, S10'.
- " . 217. Colus gracilis. Line 7: after 'S32' add '+'. Line 9: after 'S17F' add 'S20'.
- " . 219. Colus howsei. (Synonym of C.jeffreysianus). Map: add 'S50 +(J P Kreps)'.
- " . 221. Colus marshalli. (Var. of C.jeffreysianus). Lines 2-3: delete 'var. marshalli(Iredale)'.
- " . 223. Colus tortuosus. (C.holboelli). Map: add 'S32 ¢(Woodward,1990)'.
- " . 224. Colus turgidulus. Map: add 'S32 ¢(Woodward, 1990)'.
- 37. 227. Siphonorbis fenestratus. (Turrisipho fenestratus). Line 9: add 'S30'.
- " . -. Mohnia abyssorum. Now Tacita abyssorum(P Fischer) in S&H, 1991.
- " . 229. Neptunea despecta. Lines 5-6: delete 'S50 +(MFS)'.
- 38. 240. Troschelia berniciensis. Map: add 'S1 +(D W McKay);S4W +, S5 +(J P Kreps)'.

- " . 241. Spirotropis monterosatoi. Now Spirotropis modiolus(Cristofori & Jan) in S&H, 1991. Map: add 'S32 ♀(Woodward, 1990)'.
39. 244. Lora turricula. (Oenopota turricula). Map: add 'S30 @ (Smith, McKay & Nunn, in prep)'.
" . 245. Lora trevelliiana. (Oenopota trevelliiana). Map: add 'S50 +(MFS)'.
" . 246. Lora rufa. (Oenopota rufa). Map: add 'S29 +(S M Smith)'.
" . 247. Typhlomangelia nivalis. Line 3: delete 'S4W +(SMS)'. Lines 5-6: delete 'Shells from S1(BW 27), S44(SMS)'.
" . 250. Mangelia costulata. (M.smithii). Map: add 'S19 ♀(S M Turk)'.
" . 251. Mangelia coarctata. Line 12: add 'S14'.
40. 254. Mangelia nebula. Line 4: delete 'S50 +(MFS)'.
" . 261. Philbertia leufroyi. (Raphitoma boothii). Line 5: delete 'S50 +(MFS)'.
41. -. Taranis moerchi. Dist: add 'S50 +(MFS)'.
" . 272. Retusa obtusa. Map: add 'S50 +(MFS)'.
" . 274. Retusa mammillata. (R.truncatula var. mammillata). Note that some records of this form variety may be included with 273 R.truncatula.
42. 275. Retusa umbilicata. Line 10: amend 'S5' to 'S6'.
" . 279. Cylichna alba. Map: add 'S48 +(Scot Mar Biol Ass/S M Smith)'.
43. 285. Philine aperta. Line 8: add 'S40'.
" . 287. Philine catena. Line 9: add 'S30'.
" . 288. Philine denticulata. Line 9: amend 'S3' to 'S2'.
" . 289. Philine pruinosa. Line 4: amend 'S11' to 'S7'. Line 5: amend 'S30' to 'S29'.
" . 290. Philine punctata. Map: add 'S19 @(Turk, 1991)'.
44. 297. Chrysallida obtusa. Line 3: delete 'S50 +(MFS)'.
" . 298. Chrysallida indistincta. Line 8: add 'S32'.

- " . - . Chrysallida sarsi. Line 12: delete 'S50 +(MFS)'.
- 45. 303. Chrysallida spiralis. (Partulida spiralis). Line 4: amend 'S4' to 'S4E'. Line 14: add 'S29a'.
- " . 304. Menestho dolioliformis. (Noemiamea dolioliformis). Map: add 'S22 +(Light & Killeen, 1991)'. Line 9: delete 'S22'.
- " . 305. Menestho divisa. (Ondina divisa). Line 4: delete 'S50 +(MFS)'.
- " . 306. Menestho diaphana. (Ondina diaphana). Map: add 'S21 c(S M Smith)'.
- 46. 309. Menestho clavula. (Liostomia clavula). Line 9: amend 'S30' to 'S29'.
- " . 310. Odostomia nivosa. (Jordaniella nivosa). Map: add 'S29 +(Smith & Nunn, 1992)'.
- " . 312. Odostomia plicata. Lines 2-3: delete 'S50 +(MFS)'. Line 4: after 'Babio' add 'and Thiriot-Quievreux'.
- " . 313. Odostomia turrita. Map: add 'S48 c(Scot Mar Biol Ass/S M Smith)'.
- 47. 314. Odostomia unidentata. Lines 3-4: delete 'S50 +(MFS)'.
- " . 315. Odostomia conspicua. (Megastomia conspicua). Lines 3-4: delete 'S50 +(MFS)'. Line 8: add 'S18'.
- " . 316. Odostomia acuta. Map: add 'S11 @(Foster Smith, 1986)'. Line 3: delete 'S50 +(MFS)'. Line 10: delete 'S11'.
- " . 321. Odostomia scalaris. Now Brachystomia scalaris(MacGillivray) in S&H, 1991. Line 5: delete 'S50 +(MFS)'.
- " . 322. Odostomia eulimoides. (Brachystomia eulimoides). Map: add 'S48 c(Scot Mar Biol Ass/S M Smith)'.
- 48. 325. Eulimella compactilis. There is now a single record for this species, just off south west Norway. Remove square brackets, reinstate species to list, and add: 'Dist: S50 +(MFS)'.
- " . 327. Eulimella gracilis. (? synonym of E.ventricosa). Lines 9-10: delete 'S50 +(MFS)'.
- " . 328. Eulimella nitidissima. (Ebala nitidissima). Map: add 'S28 c(S M Smith)'.

- " . 329. Turbonilla elegantissima. (T.lactea). Line 14: delete 'S15'.
49. 334. Turbonilla jeffreysi. Lines 1-2: amend '334' to '335'; amend 'Forbes & Hanley' to 'Jeffreys' (note 87 of S&H, 1991).
50. 339. Limacina retroversa. Lines 4-5: delete 'S50 +(MFS)'.
 " . 348. Diacria trispinosa. Line 4: add 'S33'.
51. Family Peraclididae. Amend to 'Family Peraclidae'.
- " . -. Pneumodermopsis macrochira. Now Crucibranchaea macrochira in S&H, 1991.
- " . -. Pneumodermopsis michaelisarsii. Now Crucibranchaea michaelisarsii Bonnevie in S&H, 1991.
- " . -. Microdonta tetrabranchiata. Now Schleschia tetrabranchiata(Bonnevie) in S&H, 1991.
52. 354. Clione limacina. Line 2: delete 'S50 +(MFS)'.
 " . 355 Aplysia punctata. Line 2: delete 'S50 +(MFS)'.
 " . 356. Aplysia depilans. Map: add 'S16 +(Bebbington & Turk, 1991)'.
 " . 357. Aplysia fasciata. Map: add 'S18 +(Bebbington & Turk, 1991)'.
 " . -. Anodolyta duebenii. Now Anidolyta duebenii(Loven) in S&H, 1991.
53. 365. Elysia viridis. Map: add 'S50 +(MFS)'. Line 9: delete 'S14'; add 'S12, S20'.
 " . 367. Hermaea variopicta. Now Hermaeopsis variopicta A Costa in S&H, 1991
 " . 368. Calliopaea bellula. (Stiliger bellulus). Map: add 'S37 +(J D Nunn)'. Line 4: after 'S18' add '+'. Lines 7-8: delete 'S11 +(Gascoigne & Todd, 1977)' as record is now withdrawn by Gascoigne (1990).
 " . 370. Placida dendritica. Map: add 'S37 +(J D Nunn)'.
 " . 371. Limapontia capitata. Map: add 'S37 +(J D Nunn)'. Line 3: amend 'S2' to 'S3'.
 " . 374. Alderia modesta. Line 8: add 'S26'.

54. 379. Tritonia odhneri. (T.nilsodhneri). Line 3: after 'S18' add '+'.
 55. 394. Doto millbayana. Line 5: after 'S29 +' add 'S30 +'.
 56. 401. Okenia leachii. Line 6: amend 'S18' to 'S16'.
 ". 402. Okenia pulchella. Map: add 'S30 +(Smith, McKay & Nunn, in prep.)'.
 57. 409. Onchidoris bilamellata. Line 12: add 'S38'.
 ". 411. Onchidoris depressa. Line 4: delete 'S30 +'. Line 5: amend 'S2' to 'S3'.
 58. 426. Cadlina laevis. Line 8: add 'S20'.
 ". 427. Aldisa zetlandica. Map: add 'S29 +(Holt, 1991)'.
 59. 439. Proctonotus mucroniferus. Dist: add 'S30 +(S M Smith)'.
 60. -. Coryphella nobilis. Dist: add 'S29a +(B E Picton)'.
 ". 448. Facelina bostoniensis. Line 11: amend 'S12' to 'S13'.
 61. 454. Favorinus branchialis. Map: add 'S37 +(J D Nunn)'.
 ". 456. Aeolidia papillosa. Line 9: add 'S44'.
 ". 457. Aeolidiella alderi. Map: add 'S37 +(J D Nunn)'.
 ". 464. Eubbranchus cingulatus. Line 6: add 'S9'.
 62. 467. Cumanotus beaumonti. Map: add 'S29 +(V Shepherd/B E Picton)'.
 ". 469. Cuthona nana. Map: add 'S29a +(B E Picton)'.
 ". 472. Cuthona viridis. Line 8: add 'S20'.
 63. 482. Calma glaucoides. Map: add 'S37 +(J D Nunn)'.
 64. 487. Dentalium entalis. (Antalis entalis). Line 8: amend 'S32' to 'S31'.
 ". -. Entalina quinquangularis. Line 3: amend 'MWS' to 'MFS'.
 ". 490. Siphonodentalium lofotense. (Pulsellum lofotense). Line 4: delete 'S50 +(MFS)'.

- " . - . Cadulus subfusiformis. Now Gadila subfusiformis(M Sars) in S&H, 1991. Line 4: delete 'S50 +(MFS)'.
- " . 491. Cadulus jeffreysii. Included as a '?synonym' of the last, subfusiformis, in S&H, 1991.
- 65. 493. Nucula nucleus. Line 8: delete 'S14F'.
- " . 495. Nucula turgida. (N. nitidosa). Map: add 'S19 ‡(S M Turk)'. Line 9: add 'S44'. Line 10: delete 'S10'.
- " . - . Nucula cancellata. Now Nucula atacellana Schenk in S&H, 1991.
- 66. 497. Nuculana minuta (contd. from p. 65). (Jupiteria minuta). Line 1: amend 'S51' to 'S52'.
- . - . Spinula subexcisa(Dautzenberg & Fischer). Add deep water species from S&H, 1991 not in MMNWE (insert after 498). Dist: S44 +(S M Smith/det J Allen).
- " . - . Yoldiella fabula. The record listed in MMNWE is of Leda sericea Jeffreys, 1876, which species was included in the Smith & Heppell draft as 'Yoldiella fabula Allen, Hannah & Saunders MS syn. Ledella sericea(Jeffreys, 1876)'; however, S&H, 1991, under Yoldiella similis now quote Allen who considers that records for this species (as Leda sericea) have been confused with an as yet undescribed species of Yoldiella.
- " . - . Yoldiella fraterna. Now Yoldiella nana M Sars in S&H, 1991. Dist: add 'S44 +(S M Smith)'.
- " . - . Yoldiella intermedia. This and the next six species, together with some other protobranchs, are described and/or illustrated in Waren, 1989.
- " . 499. Yoldiella lucida. See above.
- " . 500. Yoldiella lenticulata. See above.
- " . 501. Yoldiella philippiana. See above.
- " . 502. Yoldiella frigida. See above.
- " . 503. Portlandia arctica. See above.
- " . - . Malletia cuneata. See above.
- 67. 505. Arca lactea. (Striarca lactea). Line 16: delete 'S14'.
- " . 506. Arca pectunculoides. Now Bathyarca grenophia Risso in S&H, 1991.

- " . 509. Acar nodulosa. Now Bentharca nodulosa(Muller) in S&H, 1991. Map: add 'S31 ϕ (N F McMillan)'. Line 10: amend 'S8' to 'S4W'.
68. 515. Monia squama. (syn. of Pododesmus patelliformis). Line 4: delete 'S50 +(MFS)'.
- " . 520. Modiolus adriaticus. Map: add 'S29 +(S M Smith)'.
- " . 521. Modiolus phaseolinus. (Modiolula phaseolina). Line 10: after 'except' add 'S6, S11'.
69. 525. Musculus costulatus. Line 3: amend 'S33' to 'S28'.
- " . 526. Musculus niger. Line 7: add 'S32'.
- " . 527. Dacrydium vitreum. Map: add 'S48 +(Scot Mar Biol Ass/S M Smith)'.
- " . 531. Pteria hirundo. Line 5: amend 'S28' to 'S27'.
- " . 532. Pinna fragilis. (Atrina fragilis). Map: add 'S5 @ (Woodward, 1985)'.
70. 537. Pecten maximus. Line 4: delete 'S6 +(DWMcK/SMS)'. Line 9: after 'S12' add 'and S44'.
- " . 538. Chlamys sulcata. Map: add 'S48 +(S M Smith)'. Lines 6-7: delete 'S48(SMS)'.
- . - . Chlamys bruei(Payraudeau). S&H, 1991 include bruei as a separate deep water species, not as a synonym of 538 sulcata (see note in MMNWE); add new species. Dist: S48 ϕ (Scot Mar Biol Ass/S M Smith).
- " . 540. Chlamys varia. Line 5: amend 'S28' to 'S29a'.
- " . 541. Chlamys nivea. (C.varia var. nivea). Line 13: after 'shows' add 'a shell record from S35 for which there are no details of rib count and'.
71. 546. Chlamys furtiva. (Palliolum furtivum). Line 6-7: delete 'S30 +(Smith, 1985)'; Smith has now withdrawn this record.
- " . 548. Chlamys vitrea. (Delectopecten vitreus). Map: add 'S50 +(MFS); S48 +(Scot Mar Biol Ass/S M Smith)'..
- " . 550. Manupecten alicei. (Pseudamussium alicei). Map: add 'S48 ϕ (Scot Mar Biol Ass/S M Smith)'.
- " . 553. Lima loscombi. (Limaria loscombi). Line 10: amend 'S22' to 'S21'.

72. 556. Lima subauriculata. (Limatula subauriculata). Map: add 'S50 +(MFS)'.
 ". 558. Linea sarsi. Map: add 'S48 +(Scot Mar Biol Ass/S M Smith)'.
 ". 559. Astarte sulcata. Line 7: after 'S8' add 'S40'. Line 9: add 'S20'.
 ". -. Tridonta acuticostata. Dist: add 'S48 +(Scot Mar Biol Ass/S M Smith)'.
 ". 560. Astarte elliptica. (Tridonta elliptica). Map: add 'S28 +(J D Nunn)'.
 ". 561. Astarte montagui. (Tridonta montagui). Line 12: add 'S30'.
 ". 562. Astarte triangularis. (Goodallia triangularis). Line 10: delete 'S1'.
 73. 564. Loripes lucinalis. Line 5: amend 'S7' to 'S6'.
 ". 565. Myrtea spinifera. Line 9: amend 'S31' to 'S32'.
 ". 566. Lucinoma borealis. Lines 4-5: amend 'S55 @(FMR)' to 'S55 +(Dando et al, 1986)'.
 ". 572. Thyasira croulinensis(Jeffreys, 1864). (T.obsoleta). Map: add 'S8 +(P R Dando)'.
 74. -. Thyasira sarsi (contd. from p. 73). Dist: add 'S8 +(P R Dando)'.
 -. -. Thyasira succisa(Jeffreys, 1876). Add deep water species from S&H, 1991 not in MMNWE. Dist: S48 +(Scot Mar Biol Ass/S M Smith).
 ". 573. Thyasira ferruginea. Line 10: amend 'S11' to 'S9'.
 ". 576. Kellia suborbicularis. Lines 3-4: delete 'S50 +(MFS)'.
 ". 577. Lasaea rubra. Now Lasaea adansonii(Gmelin) in S&H, 1991.
 75. 579. Lepton nitidum. (Semierycina nitida). Map: add 'S21 ♀(Smith, 1991)'.
 ". 580. Neolepton sulcatulum. Map: add 'S21 ♀(Smith, 1991)'.
 ". 581. Neolepton sykesi. (Arculus sykesi). Map: add 'S17F ♀(Keukelaar-van den Berge & Hoeksema, 1991); S21 ♀(Smith, 1991)'.

- " . 588. Montacuta phascolionis. (Tellimya phascolionis).
Map: add 'S39 +(J P Kreps)'.
76. 589. Montacuta tenella. (Decipula tenella). Line 7: amend
'S31' to 'S32'.
- " . 593. Arctica islandica. Line 6: amend 'S32' to 'S31'.
- " . 595. Glossus humanus. Line 10: after brackets add 'and
from S9'.
77. 599. Acanthocardia tuberculata. Line 8: add 'S35'.
- " . 604. Parvicardium exiguum. Map: add 'S50 +(MFS)'.
- " . 606. Cerastoderma glaucum. Map: add 'S50 +(MFS)'.
78. 610. Dosinia exoleta. Map: add 'S50 +(MFS)'.
- " . 611. Dosinia lupinus. Map: add 'S32 +(S M Smith)'. Line
9: delete 'S32'.
- " . 614. Venus verrucosa. Map: add 'S37 +(J D Nunn)'.
- " . 620. Venerupis aurea. Now Tapes aureus(Gmelin) in S&H,
1991. Map: add 'S37 +(J D Nunn)'.
- " . 621. Venerupis rhomboides. Now Tapes rhomboides(Pennant)
in S&H, 1991. Map: add 'S37 +(J D Nunn)'.
79. 622. Venerupis pullastra (contd. from p. 78).
(V.senegalensis). Line 4: delete 'S50 +(MFS)'.
- " . 623. Venerupis saxatilis. (syn. of V.senegalensis). Line
6: amend 'S1' to 'S3'.
- " . 628. Mysia undata. Line 7: amend 'S14' to 'S14F'.
- " . 631. Spisula elliptica. Map: add 'S32 +(S M Smith)'.
Line 5: after 'S13F' add '+'. Line 3 on p. 80: delete
'S32'.
80. 632. Spisula solida. Map: add 'S32 +(S M Smith)'. Line
9: delete 'S32'.
- " . 633. Spisula ovalis. Line 8: amend 'S15' to 'S16'.
- " . 638. Ervilia castanea. Line 4: delete 'S17F'.
81. 641. Tellina squalida. (Angulus squalidus). Map: add 'S32
+(S M Smith)'. Line 8: delete 'S32'.

- " . 643. Tellina fabula. (Fabulina fabula). Map: add 'S50 +(MFS); S19 +(Turk, 1991)'. Line 7: amend 'Dezarumez' to 'Dewarumez'. Line 14: delete 'S19'.
- " . 646. Tellina crassa. (Arcopagia crassa). Map: add 'S21 ϕ (Smith, 1991)'. Line 5: amend 'S50' to 'S51'.
- " . 650. Gastrana fragilis. Map: add 'S18 ϕ (M Deeble); S20 ϕ (Cocks, 1849)'. Line 16: after 'Winckworth)' add 'and S37(Tebble, fig. 76)'.
- " . 651. Macoma balthica. Map: delete 'S50 +(MFS)'.
82. 653. Scrobicularia plana. Line 3: delete 'S50 +(MFS)'.
- " . 654. Abra tenuis. Line 12: delete 'S17'.
- " . 656. Abra nitida. Line 9: amend 'S35' to 'S44'.
- " . 658. Abra prismatica. Map: add 'S28 +(J D Nunn)'. Line 11: delete 'S28'.
83. 667. Ensis arcuatus. Map: add 'S32 +(S M Smith)'. Line 3: amend 'S12 +' to 'S12 ϕ '. Line 11: delete 'S32'.
- " . 668. Ensis siliqua. Map: add 'S19 +(Turk, 1991); S32 +(S M Smith)'.
- " . -. Ensis minor. (Ensis siliqua var. minor). Map: add 'S6 ϕ , S25 ϕ , S34 ϕ , S38 ϕ (R M van Urk)'.
- " . 669. Solen marginatus. Turk (1991) includes the species within square brackets in her S19 checklist, denoting doubt over the old S19 record.
84. 676. Panomya arctica. Map: add 'S5/S8 boundary +(J P Kreps)'.
- " . 677. Saxicavella jeffreysi. Line 5: delete 'S50 +(MFS)'.
85. 685. Xylophaga dorsalis. Map: add 'S50 +(MFS); S30 +(Smith, McKay & Nunn, in prep.)'.
- " . 692. Bankia bipennata. Line 9: add 'Shell from S18'.
86. 696. Thracia phaseolina. Map: add 'S50 +(MFS)'.
- " . 699. Thracia convexa. Map: add 'S10 +, S52 +(J P Kreps); S19 ϕ (Turk, 1991)'.
- " . 702. Lyonsia norwegica. Line 3: delete 'S50 +(MFS)'.
87. 703. Pandora albida. (P. inaequalis). Line 3: amend 'S17' to 'S17F'. Line 5: delete 'S35 +, S44 +(SMS)'.

Line 12: delete 'S19'; S M Turk now regards this record as being of the next species i.e. 704 P.pinna.

- " . 707. Cuspidaria rostrata. Map: add 'S39 +(J P Kreps)'
- " . 708. Cuspidaria costellata. Map: add 'S39 +(J P Kreps); S50 +(MFS)'
- " . 709. Cuspidaria abbreviata. Map: add 'S39 +(J P Kreps); S50 +(MFS)'
- " . -. Cardiomya striata. Now Cuspidaria striata(Jeffreys) in S&H, 1991.
- 89. 731. Loligo vulgaris. Map: add 'S19 +(Turk, 1991).
- 90. 740. Rossia macrosoma. Line 7: add 'S37'.
- " . 744. Octopus vulgaris. Line 6: insert 'Delete S3 (A Skene)'. Line 9: delete 'S3'.
- 106. Page heading. Amend 'list' to 'level'.

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Note

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