

AMPHIPHOD  
NEWSLETTER - 2 ✓

December 1972

The pamphlet "An amphipod newsletter, a feasible idea?", which I sent out to ca 50 amphipod taxonomists in March 1972, and to many other amphipod workers in the months that followed, has met with a very enthusiastic and positive response. More than 80% of the scientists to whom I sent the Newsletter responded positively, and I have therefore decided to try to follow up with this second Amphipod Newsletter, which I hope will mark the start of a long series. The first newsletter was primarily addressed to taxonomists, and although this second newsletter contains the addresses of many workers on ecological, physiological and parasitological problems connected with amphipods and I have tried to cover the literature as fully as possible, its contents still lean rather heavily towards taxonomic and nomenclatural aspects. I hope this will not deter the non-taxonomists among us, but rather spur them into activity in order to get a more balanced third Newsletter.

I have had much help with addresses of amphipod workers, but disappointingly little in compiling the list of recent literature. This explains the fact that the address list now contains as many as 207 addresses (making it technically impossible at this time to include the Isopoda or any other group in this venture), while the bibliography is probably quite incomplete.

A problem which is still unsolved is how much the Newsletter is to cost; ideas among colleagues seem to vary considerably. It is not yet possible for me to calculate the cost of producing and sending two newsletters a year, but in the next issue I hope to suggest a subscription fee. I intend to send the newsletter by air mail outside Europa and North America, but by surface mail to U.S.A. and Canada. I hope this will be agreeable to all of you. In the meantime I shall of course gladly accept any financial help you may be able to give, and I should also like to hear from those who have not written before whether they would like to continue to receive the Newsletter.

Ideas about what an Amphipod Newsletter should contain are as diverse as the amphipods themselves, but a few items keep recurring: Bibliographies (both a list of recent literature and bibliographies on specialized subjects); a "gossip column" telling of

people's interests and current research-programmes; data on the whereabouts of type-specimens, classic amphipod collections, translations of literature, etc., and of course changes of address, announcements of meetings etc. I myself should like to add that it may also be very useful to exchange ideas about "Material and Methods", such as anaesthetization and fixation fluids, marking methods, techniques of dissecting, cutting and embedding of e.g. heavily calcified cuticle, how to fix protozoan parasites so that they are of use to a specialist, etc., etc.

Finally, I want to thank those colleagues who have helped me with addresses, especially Thomas Bowman, Philippe Laval, John McCain, Sandro Ruffo, Chi Tai Shih and Kwang Il Yoo. Mrs. I.I. Greze has been invaluable as a contact with Russian scientists and literature, and she and Gordan Karaman have also helped me with translations from Russian. Mike Thurston deserves special mention as the only man who spontaneously sent a reference for inclusion in the bibliography!

The deadline for contributions to the third Amphipod Newsletter is 1 July 1973, and my new address is: Tromsø Museum, N-9000 Tromsø, Norway (at 70 N!). I look forward to receiving many comments, references, reprints and contributions before then, and apologize in advance for not answering personally to every one of them: the Newsletter is mainly a spare-time project.

Blomsterdalen, december 1972

*Wim Vader*  
Wim Vader.

"THE CYAMIDEA - A NEW SUBORDER?"

I am working on a review of the Amphipoda and problems of higher systematics have raised their heads, specifically the question of whether or not the Cyamidae should be raised to the status of a suborder. Barnard (1969) hinted at this in his "Families and Genera of Marine Gammaridean Amphipoda" where he referred to them as "essentially comprising a fifth major group of Amphipoda". McCain (1970, Proceedings Biological Society of Washington, 82:841) quotes this and continues "their separation from the Caprellidea into a fifth suborder deserves consideration by a cyamid specialist".

Unfortunately, cyamid specialists are not thick on the ground these days, and after looking at what evidence there is I think there is a valid case for raising the Cyamidae to the level of suborder. I suspect this has not been done before simply because there have been so few workers in either group and the status quo has been hallowed by time. I feel that if they were in the Isopoda, it would have been done long ago, and not just on grounds of convenience but of natural grouping and clear-cut distinction.

I would be grateful for any comments directed to me at the Crustacea Section, British Museum (Natural History), Cromwell Road, London, SW7, before May 1, 1973.

I would also appreciate comments on the advantages or disadvantages, reality or otherwise of the separation of the Hyperidea by Pirlot in 1929 (in the "Armauer Hansen" results) into Hyperidea Physosomata (Subtribes Sciniformata and Lanceoliformata) and Hyperidea Eugenuina as against Woltereck's Hyperidea Gammaroidea and Hyperidea Genuina with their accompanying differences in detail. Pirlot (1932)<sup>†</sup> suggested a possible polyphyletic origin for the Hyperidea but shied away from taking this any further at that time. I have not found any evidence so far that he raised the question again but I may well have overlooked something and again I would appreciate any comments. - D.E.Hurley".

<sup>†</sup>Introduction a l'étude des Amphipodes Hypérides", in Annales de l'Institut Océanographique, 12:1-36

THE CORRECT SPELLING OF THE SPECIFIC NAME OF ORCHESTIA GAMMARELLUS  
(PALLAS) - Wim Vader

The supralittoral beach hopper, Orchestia gammarellus (Pallas), has been widely used in Europe as a subject for ecological and physiological studies; it may therefore be desirable to decide which of the two spellings of the specific epithet, "gammarellus" or "gammarella", is the correct one. At present both are in common use.

The amphipod in question was diagnosed by Pallas in 1766, and more fully described in 1772, as Oniscus Gammarellus. The word "Gammarellus", written with a capital G, is in my opinion a substantive, a diminutive of Gammarus, in the same way as Pulex and Locusta also used by Pallas. Consequently, the spelling of the word is independent of the gender of the generic epithet, and the correct spelling is Orchestia gammarellus. I shall be glad to have any comments, especially a defence of the widely used form "gammarella" for the Newsletter.

NEWS FROM COLLEAGUES

To get this column started, I have used a number of quotations from letters I got in response to the first newsletter. I hope all amphipod workers will contribute to this column by writing in their interests and current programmes.

J.L. BARNARD At present my main interests are: 1. The gammarideans of Mexico, Panama and the Galapagos Islands. 2. The gammari-deans of Australia. Mrs. Margaret M. Drummond and I are working together on a monograph of the Phoxocephalidae of Australia.

E.L. BOUSFIELD: Littoral marine amphipods and other peracaridans were collected at some 34 stations in the Cape Horn islands, S. America during the "Hudson 70" expeditions. I am personally planning to work up some amphipod families such as Hausto-riidae, Phoxocephalidae, Talitroidea and a few others, but the rest of the material (Pontogeneiidae, Calliopiidae, Oedicero-tidae, Lysianassidae, etc.) is available to anyone interested in working up the material during the next 3-5 years. Since little material from the region is available in museum collections, some members with studies on antiboreal amphipods in progress might like to know of the existence of these recent collections.

BOB COOPER: There will be two papers submitted for editing in approximately two months: 1. New Amphipoda from Stewart Island, New Zealand, 2. Wellington Harbour Amphipoda Pt. 1 - Phoxocephalidae. The next section will involve the Lysianassidae.

ROBERT A. CROKER: I have a large collection of Central Pacific amphipods (Marshall Islands), that will take a considerable amount of work to analyze. The collections include a number of very small "crevice living" species.

FRANK EVANS: My interests are in North Sea hyperiids (Parathemisto, Hyperoche, Hyperia).

ROBERT FOX: My own work for the past three years has been on faunistic studies of the estuaries of the southeastern United States and several papers are currently in preparation reporting that work. I am presently beginning studies on the biology of several species of Corophium on the North Carolina coast.

J.R. HOLSINGER: My major interest in the Amphipoda is in the systematics of the freshwater Gammaridae of North America, especially the Crangonyx group of the family. I have a particular interest in subterranean amphipods and am also doing some ecological work with the group.

P.J. LABOURG: I am working at present on the ecology of the brackish ponds around Arcachon. I am studying the benthic animal populations as well as those of the periphyton. The problems dealt with are the following: distribution, seasonal variations, reproductive activity, nutrition.

JEAN-PAUL LAGARDÈRE: Il me faut déterminer une collection d'Amphipodes provenant du Golfe de Gascogne, récoltée entre 200 et 1300 m de profondeur sur des fonds meubles. Les données faunistiques et écologiques tirées des Amphipodes viendront s'ajouter à celles recueillies sur les Décapodes, Mysidacés, Cumacés et Isopodes, dans le but d'une meilleure connaissance de la faune vagile du talus continental du Golfe de Gascogne.

DIANA LAUBITZ: At present I am working on a revision of the genus Dulichia (Podoceridae), along with identification of the American Atlantic boreal and arctic podocerids.

A.P.M. LOCKWOOD: In this laboratory we are at present studying the volume regulation and permeability to water in various amphipods, though with special reference to Gammarus duebeni.

P.G. MOORE: Interests: Ecology of algal associated fauna, particularly in sublittoral zone. Presently working on Hyale nilssonii as simple test population. Population dynamics, feeding leading to understanding of community regulative processes.

ROLLIN D. REIMER: I have very good collections from Galveston Bay, Texas, and my efforts will be oriented to this geographical area rather than with any specific group.

J.H. SANDERSON: Interested mainly in the taxonomy of British species. I am at present engaged in publishing a catalogue of the D.M. Reid collection which we have here, which includes type material. We have also material collected by T. Scott, D.S. Raitt, prof. MacIntosh, and of course W.S. Bruce material. We have here a very good library of literature relating to Amphipoda, and I would be willing to assist anyone with literature problems if it was at all possible. I also have some translations from the German of Pfeffer, Heller, Schellenberg and I hope to complete others if time permits.

MARTIN SHEADER: I am at present working on the biology of North Sea hyperiids, and on the taxonomy of the genus Parathemisto.

ANDRZEJ SKALSKI: My main research interests are on the subterranean Gammaridae in Poland. I have been working on the variability of Niphargus tatrensis and N. leopoliensis and redescribed both. A monograph of Polish subterranean Gammaridae is in preparation. I am also interested in some problems concerning ecology of underground gammarids.

WIM VADER: I am at present mainly working on amphipods living in associations with sea anemones (all information on this topic is very welcome), and on mediterranean Haustoriidae and Stenothoidae, in connection with the preparation of the new Handbook of Mediterranean Amphipod. Further research interests; Atlantic Haustoriidae; Ellobiopsidae; protozoan and crustacean

associates of amphipods; biology and taxonomy of Norwegian and arctic Amphipoda.

KWANG IL YOO: I have been studying on the ecology of pelagic amphipods in the western North Pacific and adjacent seas of Japan during my stay in Japan in 1966-70. Currently, I am studying the CSK amphipod samples, both Hyperiid and Gammarids, collected from Korean Waters.

REQUESTS FOR INFORMATION, COOPERATION ETC.

#### COROPHIUM

Dr. R.W. Ingle of the British Museum (Natural History), Cromwell Road, S.W.7, London, has completed a manuscript on the taxonomy of the genus Corophium. Through the kindness of various individuals and institutions he has examined material of all species except for Corophium homoceratum Yu, 1938, C. heteroceratum Yu, 1938, C. minutum Dang, 1965 and C. intermedium Dang, 1965. He has compiled keys to the world species and proposes to publish a preliminary illustrated key to this genus. He will be pleased to receive, and will undertake to identify, unnamed material of Corophium in order to check his manuscript keys. He is also interested in receiving material from the following regions: eastern Mediterranean, western Mediterranean particularly the North African coast, South America, India, East Indies, coasts of China and Japan, and northern Australia.

#### LEPTOCHEIRUS

I am beginning an autecological study of the marine gammarid, Leptocheirus pinguis (Stimpson) and wondered whether a request for information would be appropriate in the Amphipod Newsletter?. I am interested in distribution, comparative morphometrics, breeding history growth etc., of this or related species. References or preserved material would be most helpful - D.J. Wildish.

(I hope this may become a test-case of the usefulness of having an amphipod newsletter! - W.V.)

#### ELLOBIOPSIDAE

I am collecting data on the distribution, biology and host-specificity of the ellobiopsid parasite of amphipods, Thalassomyces marsupii Kane, 1964. Hitherto this parasite has been found on spe-

cies of Hyperiididae (Parathemisto) and Eusiridae (Eusirus and Rhachotropis), with rumors of its occurrence on other predatory pelagic amphipods. I should be very grateful for information on and/or specimens of Thalassomyces parasitizing other amphipod genera than the three mentioned above. - Wim Vader.

#### MEDITERRANEAN AMPHIPODA

In connection with the preparation of the Mediterranean Handbook of Amphipoda, I need mediterranean material of the following amphipod species: Bathyporeia pilosa, Cressa dubia, Epimeria cornigera, Haustorius algeriensis, Lafystius sturionis, Melphidippella macra, Urothoe brevicornis and U. grimaldii s.str. I should also be very grateful for Black Sea and eastern Mediterranean specimens of Bathyporeia and Stenothoe species, and, in connection with another project, Black Sea Hyale pontica and Talorchestia brito. - Wim Vader.

#### THE PODASCONIDAE, ISOPOD PARASITES OF AMPHIPODA - Wim Vader & Jarl-Ove Strömberg.

The Podasconidae, one of the families of the tribe Cryptoniscina (Isopoda, Epicaridea), contains 5 nominal species, but none of them has been described sufficiently and the real number of species is unknown. The described species are parasites of Ampeliscidae (Ampelisca, Haploops) and Lysianassidae (Onisimus), but adult female parasites, which are virtually unidentifiable, have also been found on representatives of several other families. Strömberg and S.-O. Nielsen of the University of Lund, Sweden, have taken up the study of the taxonomy of the Cryptoniscina, using scanning electron microscopy as a major tool, while Vader has studied the biology of a population of Parapodascon stebbingi parasitizing the amphipod Onisimus normani, itself an inquiline of sea anemones. We now intend to combine forces for a revision of the family Podasconidae, and shall be very grateful for information about, and the loan of material of, any cryptoniscid larvae you may have found as parasites of amphipods. Adult females podasconids, which are mere sacs filled with eggs or embryos, are very unsatisfactory to study from the taxonomic point of view, due to the lack of exterior characters, but we would welcome also such material and data about their occurrence. The appended bibliography of the very scattered literature on the Podasconidae is ordered chronologically, and only those pages actually containing data on podascon-

nids are mentioned. Should some literature be omitted from this list, we should like to learn about it.

LITERATURE: PODASCONIDAE

1. Giard, A. & J. Bonnier 1889. Sur un Épicaride parasite d'un Amphipode et sur un Copépode parasite d'un Épicaride. C. r. hebd. Séanc. Acad. Sci., Paris 108:902-905
2. Della Valle, A., 1893. Gammarini. Fauna u. Flora Neapel, Monogr. 20:289
3. Stebbing, T.R.R., 1893. A History of Crustacea. London: 401.
4. - 1894. The Amphipoda collected during the voyages of the Willem Barents in the Arctic Seas in the years 1880-1884. Bijdr. Dierk. 17:46-47.
5. Giard, A. & J. Bonnier 1893. Sur deux types nouveaux de Chonistomatidae des côtes de France, Sphaeronella microcephala et Salenskya tuberosa. C. r. hebd.. Séanc. Acad. Sci., Paris 117:448-449.
6. - 1895. Contributions à l'étude des Epicarides. Bull. scient. Fr. Belg. 25:446-462.
7. Sars, G.O., 1899. An account of the Crustacea of Norway 2, Isopoda. Bergen:244-245.
8. Bonnier, J., 1900. Contribution à l'étude des Epicarides; les Bopyridae. Trav. Sta. zool. Wimereux 8:202-205
9. Calman, W.T., 1909. A treatise on zoology 7(3). Crustacea. London:221.
10. Tattersall, W.M., 1911. Die nordischen Isopoden. Nord. Plankt., Zool. 3(6):263, 286.
11. Hansen, H.J., 1916. Crustacea Malacostraca, III: Isopoda. Dan. Ingolf-Exped. 3(5):217-219.
12. Zimmer, C., 1927. 4. Ordnung der "Reihe Peracarida" der Crustacea Malacostraca. 11. Ordnung der Crustacea: Isopoda = Asseln. In: W. Kükenthal & T. Krumbach (eds.). Handbuch der Zoologie 3(1):763.
13. Nierstrasz, H.F. & G.A. Brender à Brandis 1923. Die Isopoden der Siboga-Expedition II, Isopoda genuina, I. Epicaridea. Siboga Exped. Monogr. 32b:63.
14. - 1927. Isopoda x.e<sub>1</sub>: 1. Epicaridea. In: Grimpe & Wagler (eds)<sub>1</sub> Die Tierwelt der Nord- und Ostsee 6(x.e) 16.

15. Nierstrasz, H.F. & G.A. Brender a Brandis 1931. Papers from Dr. Th. Mortensen's Pacific Expedition 1914-16. 57. Epicaridea II. Vidensk. Medd. dansk naturh. Foren. 91:215-217
16. Barnard, K.H., 1930. Crustacea. Part XI - Amphipoda. Br. antarct. ("Terra Nova") Exped., nat.Hist. Rep., Zool. 8:376
17. Gurjanova, E., 1933. Die marinen Isopoden der Arktis. Fauna arct., 6:455
18. Stephensen, K., 1937. Marine Isopoda and Tanaidacea. In: A. Fredriksson & S.L. Tuxen (eds). The Zoology of Iceland 3\_(27):13.
19. Barnard, J.L., 1961. Gammaridean Amphipoda from depths of 400 to 6000 meters. Galathea Rep. 5:96
20. Nielsen, S.-O. & J.-O. Strömberg 1965. A new parasite of Cirolana borealis Lilljeborg belonging to the Cryptoniscinae (Crustacea Epicaridea). Sarsia 18:55-56
21. Vader, W., 1967. Notes on Norwegian marine amphipods 1-3. Sarsia 29:290.
22. - 1970. Amphipods associated with the sea anemone, Bolocera tuediae, in western Norway. Sarsia 43:94.
23. Nielsen, S.-O. & J.O. Strömberg, 1972. Surface structure of aesthetascs in Cryptoniscinae (Isopoda Epicaridea). Sarsia (in press).
24. - 1973. Morphological characters of taxonomical importance in Cryptoniscina (Isopoda Epicaridea). Sarsia (accepted for publication dec. 1972).

#### ANNOUNCEMENTS

##### GAMMARUS AND NIPHARGUS SYMPOSIUM

In 1969 the "Premier Colloque International sur le genre Niphargus" was held in Verona, Italy, under the chairmanship of Sandro Ruffo. The proceedings of this symposium have been published in 1972 as: S. Ruffo (ed.), 1972. Actes du Ier colloque international sur le genre Niphargus, Verona 15.-19. april 1969. Memorie Mus. Civ. Stor. Nat. Verona, Suppl. 5:1-91; the separate contributions have been included in the list of recent amphipod literature in this newsletter.

Now Dr. Ginet of the University of Lyon, France, has invited

specialists to the "2e Colloque International sur le genre Niphar-gus", to be combined with the "1er Colloque International sur le genre Gammarus" (organized by A.L. Roux), and to be held in Lyon, France, 9.-11. July 1972. Among the items to be discussed can be mentioned: criteria for classification on the generic level in

Gammaridae, ecology of Gammaridae, individual, intraspecific and specific variability, etc. Further details on the Symposium can be obtained from Drs. R. Ginet and A.L. Roux, Biologie Animale et Zoologie (403), Université Cl. Bernard, 43, Bd du 11 Novembre 1918, 69621 Villeurbanne, France.

E.L. BOUSFIELD: SHALLOW-WATER GAMMARIDEAN AMPHIPODA OF NEW ENGLAND

The handbook of the amphipods of the region from the Gulf of Maine to the Middle Atlantic States is now scheduled for publication in January 1973. The book treats 200 species living mainly in depths of less than 100 ft., of which 125 species are fully figured, described and keyed; semiterrestrial, brackish-water and epigean fresh-water amphipods that occur within a few miles of the coast, are included. Amphipod morphology and systematics, life history, behavior and physiology are covered, as are methods of collecting, preservation and study. The book counts 344 pages, is published by Cornell University Press and costs 17.50 dollar. A rather expensive "must"!

A.W. JANKOWSKI: FAUNA OF THE USSR. CILIOPHORA. II-I SUBCLASS CHONOTRICHA.

Dr. Jankowski writes me that publication of this long-awaited monograph, which has been in press since 1967, now can be expected in winter or spring 1973. It will contain many previously insufficiently known or undescribed species of these curious ciliates, which with a single exception, only have been found as associates of Crustacea. Dr. Jankowski has in preparation also the volume on Suctoria in the same series, which a.o. will deal with the much discussed suctorian associates of Lake Baikal gammarids.

GAMMARIDEAN AMPHIPODA FROM THE SOUTH CHINA SEA- Wim Vader

Under the above title Miss Marilyn Clark Imbach published an extensive taxonomic study (NAGA Report 4(1) 1967, p.39-167), which

has never been abstracted in any of the major reference journals and which consequently has been completely overlooked by amphipodologists.

The collections on which miss Imbach's paper is based had been brought together by Dr. Victor A. Gallardo, from the Bay of Nhatrang, Viet Nam. The material, including types, is kept in the University Zoological Museum, Copenhagen, Denmark, and it was by stumbling upon the collection during a visit to that Museum last spring, that I got <sup>the</sup> first clue about the probable existence of a major taxonomic paper. As most amphipod workers seem to be unaware of the existence of this study, a short summary of its contents may be useful.

The collections contained 34 identifiable species in 10 families, of which 20 are described as new. These are Ampelisca chinensis, A. honmungensis, A. maia, A. orops, Byblis calisto, B. febris, B. io, B. pilosa, Cymadusa valosa, Eriopisella propagatio, Idunella janisae, I. pauli, I. serra, Lepidepcreum nudum, Leucothoe alcyone, Socarnes dissimulantia, Synchelidium miraculum, Urothoe carda, U. cuspis and U. gelasina. Other taxa, for which a complete illustration is provided, are Ampelisca brevicornis (Costa), A. cyclops Walker (with A. iyoensis Nagata as a subspecies) A. misakiensis Dahl, Cheiriphotis ? megacheles Giles, Grandideriella ? gilesi Chilton, Photis species A and B, Urothoe orientalis Gurjanova, and U. spinidigitus Walker. Keys to Idunella, Urothoe and the SE-Asian species of Ampelisca are also given.

The paper is almost exclusively taxonomic in outline, with a few zoogeographic remarks in the somewhat mis-named "summary".

The NAGA-Reports contain the Scientific results of marine investigations of the South China Sea and the Gulf of Thailand 1959-1961, sponsored by the governments of South Viet-Nam, Thailand and the United States of America, and are published by Scripps Institution of Oceanography, La Jolla, California, U.S.A., where they also are obtainable. The printing date of volume 4 part 1 was apparently October or November 1967, and its price is 5 dollars. Dr. E. Brinton of Scripps desires me to state, however, that the Scripps Institution of Oceanography would be glad to send this volume free to amphipod workers in Asia, and to other specialists with limited budgets.

I am much indebted to Drs. Jørgen Knudsen and Torben Wolff (København), Prof. W. Stephenson (Brisbane), Dr. J.L. Barnard (Washington) and Dr. E. Brinton (La Jolla) for their help in

"tracking" miss Imbach's paper.

A LIST OF AMPHIPOD GENERA AND SPECIES DESCRIBED BY W. LILLJEBORG  
= Wim Vader.

Correct citation of the Amphipoda described by professor William Lilljeborg (1816-1908) of Uppsala, Sweden, has always proved difficult, for two reasons: 1. The author changed his name from Vilhelm (or Wilhelm) Liljeborg to William Lilljeborg somewhere around 1860, and 2. A number of species were described in two different papers, often without cross references. For my own use, I have made a list of the correct spelling and dating of all Lilljeborg's nominal genera and species, together with a bibliography of his papers concerning Amphipoda. To save others the considerable amount of work involved, I have decided to publish this list in the Amphipod Newsletter. The items in the bibliography are numbered, and these numbers are used in the list of genera and species which is ordered alphabetically. The current status' of Lilljeborg's names is mainly decided from the literature and does not imply own studies. Two genera and two species of Amphipoda have been dedicated to Lilljeborg. These are the genera Liljeborgia Bate, 1862 and Lilljeborgiella Schellenberg, 1931, and the species Anonyx lilljeborgii Boeck, 1871, and Leucothoe lilljeborgii Boeck, 1861.

I am much indebted to the Libraries of the Royal Swedish Academy of Sciences and of the University of Uppsala for bibliographical information.

#### BIBLIOGRAPHY

- I. LILJEBORG, V., 1851. Bidrag till den högnordiska hafsfauaen. Ofvers. K. svenska VetenskAkad. Forh. 7(1850):82-88.
- II. LILJEBORG, W., 1851. Bidrag till norra Rysslands och Noriges fauna, samlade under en vetenskaplig resa i dessa länder 1848. - K. svenska VetenskAkad. Handl. (1850):233-341, Pls. 19-20.
- III. LILJEBORG, Hr. Adjunkt W., 1852. Norges Crustacéer. - Ofvers. K. svenska VetenskAkad. Förh. 8(1851):19-25.
- IV. LILJEBORG, Hr. Adjunkt, 1853. Hafs-Crustaceer vid Kullaberg. - Ibid. 9(1852):1-13.

- V. LILJEBORG, V., 1855. Öfversigt af de inom Skandinavien hittills funna arterna af släktet Gammarus Fabr. - K. svenska VetenskAkad. Handl. (1853):443-460.
- VI. LILJEBORG, Hr. Professor, 1856. Om Hafs-Crustaceer vid Kullaberg i Skåne. - Öfvers. K.svenska VetenskAkad. Forh. 12(1855):117-138.
- VII. LILLJEBORG, W., 1865. On the Lysianassa magellanica H. Milne Edwards and on the Crustacea of the suborder Amphipoda and subfamily Lysianassina found an (sic!) the coast of Sweden and Norway. - Royal Academic Press, Uppsala, 38 pp, 5 Pls. (also in: Nova Acta R. Soc. Sc.ups., Ser.3, 6, (1868):1-38, Pls. 1-5)
- VIII LILLJEBORG, W., 1865. Bidrag til kannedomen om underfamiljen Lysianassina inom underordningen Amphipoda bland kräftdjuren. - Uppsala Univ. Årsskr. (1865):1-25.

Acidostoma	VII-34	Acidostoma Lilljeborg, 1865
Ampelisca laevigata	VI -123	A. brevicornis (A. Costa)
A. macrocephala	IV--7	A. macrocephala Liljeborg, 1853
A. tenuicornis	VI -123	A. tenuicornis Liljeborg, 1856
Amphithoe compressa	IV -8	Atylus swammerdamei (MilneEdwards)
A. pygmaea	IV -9	Photis reinhardi Kröyer
Anonyx brachycercus	VII-27	Menigrates obtusifrons (Boeck)
A. nanoides	VII-25	Tryphosa nanoides (Lilljeborg, 1865)
A. norvegicus	III-22	Tmetonyx cicada (Fabricius) s.l.
A. pumilus	VII-10	Centromedon pumilus (Lilljeborg, 1865)
Calliopius	VII-19	Calliopius Lilljeborg, 1865
Eurytenes (non Foerster,, 1862)	VII-11	Eurythenes S. Smith
Gammaropsis	V -455	Gammaropsis Liljeborg 1855
Gammarus assimilis	III-23	Cheirocratus assimilis (Liljeborg, 1852)
G. Duebenii	III-22	Gammarus duebenii Liljeborg 1852
G. erythrophthalmus	V -455	Gammaropsis maculatus (Johnston)
G. longipes	IV -10	Lembos longipes (Liljeborg, 1853)
G. macronyx	V -458	Protomedeia fasciata Kröyer
G. maculatus (non Johnston 1827)	IV -10	Melita obtusata (Montagu)
Haploops	VI -135	Haploops Liljeborg, 1856

H. carinata	VI -136	H. tubicola Liljeborg
H. tubicola	VI--135	H. tubicola Liljeborg, 1856
Ischyrocerus minutus	II -346	I. anguipes Kröyer s.l.
Leucothoe norvegica	I -82	Metopa norvegica (Liljeborg, 1851)
Microplax (non Fieber 1861)	VII-19	Liljeborgia Bate
Odius	VII-19	Odius Lilljeborg, 1865
Oediceropsis	VII-19	Oediceropsis Lilljeborg, 1865
O. brevicornis	VII-19	O. brevicornis Lilljeborg, 1865
Tiron	VII-19	Tiron Lilljeborg, 1865
T. acanthurus	VII-19	T. acanthurus Lilljeborg 1865

BIBLIOGRAPHY: ADDENDA

- Bek, T.A., 1972. (Quantitative distribution of mass species of Gammaridae (Amphipoda) in the littoral zone of the Rugozer-sky Inlet (Kandalaksha Bay)). - Zool. Zh. 51:975-982 (in Russian, not seen. On biotope and zonation of Gammarus (Marinogammarus) obtusatus, G. (Rivulogammarus) duebeni and G. (Boreogammarus) oceanicus in a White Sea habitat.)
- Hindsbo, O., 1972. Effects of Polymorphus (Acanthocephala) on colour and behavior of Gammarus lacustris. - Nature, Lond. 238:333
- Steele, V.J. & D.H. Steele, 1972. The biology of Gammarus (Crustacea, Amphipoda) in the northwestern Atlantic. 5. Gammarus oceanicus Segerstråle. - Can.J.Zool. 50:801-813.
- Solomon, D.J. & A.E. Brafield, 1972. The energetics of feeding metabolism and growth of Perch (Perca fluviatilis L.). - J.Anim.Ecol. 41:699-718. (Contains data on the energy content of Gammarus pulex).
- Sandeman, I.M. & M.D.B. Burt, 1972. Biology of Bothrimonus (= Diplocotyle) (Pseudophyllidea:Cestoda): Ecology, life cycle and evolution; a review and synthesis. - J.Fish.Res.Bd Can. 29:1381-1395 (intermediate stages in Gammarus and Marinogammarus species)
- Barnard, J.L. 1971b, continued.  
Epimeria cora, Halice (?) ulcisor, Halicella halona, Pardaliscella (?) yaquina, Pardisynopia (?) lolo, Harpiniopsis percellaris, H. triplex, Paraphoxus yigitegus, Pleusymtes coquilla. A number of earlier described species are redescribed and illustrated, and the synonymy of the Hippomedon denticulatus-group of species, and the pardaliscid genera Halice, Pardaliscella and Pardisynopia discussed.)

H. carinata	VI -136	H. tubicola Liljeborg
H. tubicola	VI--135	H. tubicola Liljeborg, 1856
Ischyrocercus minutus	II -346	I. anguipes Kröyer s.l.
Leucothoe norvegica	I -82	Metopa norvegica (Liljeborg, 1851)
Microplax (non Fieber 1861)	VII-19	Liljeborgia Bate
Odius	VII-19	Odius Lilljeborg, 1865
Oediceropsis	VII-19	Oediceropsis Lilljeborg, 1865
O. brevicornis	VII-19	O. brevicornis Lilljeborg, 1865
Tiron	VII-19	Tiron Lilljeborg, 1865
T. acanthurus	VII-19	T. acanthurus Lilljeborg 1865

BIBLIOGRAPHY: ADDENDA

- Bek, T.A., 1972. (Quantitative distribution of mass species of Gammaridae (Amphipoda) in the littoral zone of the Rugozersky Inlet (Kandalaksha Bay)). - Zool. Zh. 51:975-982 (in Russian, not seen. On biotope and zonation of Gammarus (Marinogammarus) obtusatus, G. (Rivulogammarus) duebeni and G. (Boreogammarus) oceanicus in a White Sea habitat.)
- Hindsbo, O., 1972. Effects of Polymorphus (Acanthocephala) on colour and behavior of Gammarus lacustris. - Nature, Lond. 238:333
- Steele, V.J. & D.H. Steele, 1972. The biology of Gammarus (Crustacea, Amphipoda) in the northwestern Atlantic. 5. Gammarus oceanicus Segerstråle. - Can.J.Zool. 50:801-813.
- Solomon, D.J. & A.E. Brafield, 1972. The energetics of feeding metabolism and growth of Perch (Perca fluviatilis L.). - J.Anim.Ecol. 41:699-718. (Contains data on the energy content of Gammarus pulex).
- Sandeman, I.M. & M.D.B. Burt, 1972. Biology of Bothrimonus (= Diplocotyle) (Pseudophyllidea:Cestoda): Ecology, life cycle and evolution; a review and synthesis. - J.Fish.Res.Bd Can. 29:1381-1395 (intermediate stages in Gammarus and Marinogammarus species)
- Barnard, J.L. 1971b, continued.  
Epimeria cora, Halice (?) ulcisor, Halicella halona, Pardaliscella (?) yaquina, Pardisynopia (?) lolo, Harpiniopsis percellaris, H. triplex, Paraphoxus yigitegus, Pleusymtes coquilla. A number of earlier described species are redescribed and illustrated, and the synonymy of the Hippomedon denticulatus-group of species, and the pardaliscid genera Halice, Pardaliscella and Pardisynopia discussed.)

To judge from the reactions received after the first "amphipod newsletter" was sent out, one of the most important services of a newsletter to amphipodologists is considered to be the regular issuing of an annotated bibliography of recent literature dealing with amphipods or other subjects thought to be of interest for us. It is therefore very much a pity that very few of those reacting have considered it worth while to keep me informed of their own production in the field in the years 1971 - 1972. As a result the production of the bibliography given below has costed me an enormous amount of time, while the result probably is a quite incomplete list. Library facilities at my new address in Tromsø will probably, at least initially, be less good than in Bergen, and I should therefore once more like to ask everybody who wants this newsletter to be a success, to keep me informed about his new publications, or better still, to send me a reprint by air mail; the latter will enable me to give notes on new species, techniques etc. in the bibliography. I am especially "weak" in genetic, physiologic and biochemical literature, and papers dealing with endoparasites of Amphipods, and with subterranean species, and I shall be most grateful for any help I can get in these fields.

A further problem in compiling this bibliography has been where to draw the boundary in including or excluding papers dealing with population studies, and general faunistic papers, listing the occurrence of a.o.a few amphipods. As examples of the first category I can mention many papers in the French journal "Tethys", Day, Field & Montgomery's paper on sandy bottoms off Carolina (J. Anim.Ecol. 40, 1971); or Dörjes' studies on sandy bottoms in Italy and Carolina (Senckenbergia mar. 3 and 4, 1971-72). Faunistic papers are of course published in profusion, often in journals of quite limited circulation. I have chosen to exclude most papers of these two types, if amphipods are not especially prominent in them, as to include them would nearly double the list of references, and make it still more incomplete. Comments on these problems are very welcome.

- ANDRELV, S.N., 1972. Diffusion du genre *Niphargus* en Bulgarie et notes taxonomiques sur *N. bureschi*. - Acta Niphargus - Symp. 1969:61-66.
- ARIMOTO, I., 1971. List of Caprellidae Amphipoda in Japan with record of new localities (sic) part 2. - Bull. biogeogr. Soc. Japan 26:13-20 (with *Caprella neglecta barbigra* n-ssp.)
- , 1972. idem. part 3. - ibid.27:43-47.
- , 1971. The Caprellidae (Crustacea, Amphipoda) of lake Kamo-ko and Ryotsu Bay, Sado Island. - Ann.Rep.Sado mar. biol.Stn. Niigata Univ. 1:29-50.
- ARTHUR, J.W. & J.G. EATON, 1971. Chloramine toxicity of the amphipod *Gammarus pseudolimnaeus* and the fathead minnow (*Pimephales promelas*). - J. Fish.Res.Bd. Can. 28:1841-1845.
- BAID, I.C. & S.A. DABBAGH, 1972. On the neurosecretory system of *Rivulogammarus syriacus* Chevreux. - Biol.Bull.mar.biol. Lab.Woods Hole 142:370-384.
- BARANOVA, Z.I. & P.V. USHAKOV, 1972. (Eupraxie Gurjanova (70th anniversary)). - Issled. Fauny Morei SSSR 10:5-7. (in Russian).
- BARNARD, J.L., 1971. Keys to the Hawaiian marine Gammaridea, 0-30 meters. - Smithsonian Contrib. Zool. 58:1-135.
- , 1971. Gammaridean Amphipoda from a deep-sea transect off Oregon. - ibid.61:1-86 (New taxa: *Byblis thyabilis*, *Anonyx comecrudus*, *Hippomedon* (?) *tracatrix*, *H.wecomus*, *Lepidepecreoides nubifer*, *Bathymedon vulpeculus*, *Finoculodes* (Oedicerotidae), *F. omnifera*. ( see further p. 15)
- , 1972. Gammaridean Amphipoda of Australia. Part 1. - ibid. 103:1-333. (Date of publication 3 May 1972. A most important paper).
- BARNETT, P.R.O., 1971. Some changes in intertidal sand communities due to thermal pollution. - Proc. Roy.Soc.Lond. B177:353-364.
- BECKER, G., 1971. On the biology, physiology and ecology of marine wood-boring crustaceans. - Pp.304-326 in: GARETH JONES, E.B. & S.K. ELTRINGHAM (ed.): Marine borers, fungi and fouling organisms of wood. Proc. OECD-workshop 1968. OECD, Paris.

- BELLAN - SANTINI, D., 1971. Etude des Crustacés Amphipodes de la biocénose des Algues photophiles dans la région provençale. - Rapp.P.-v. Reun.Commn int. Explor.scient.Mer Méditerr. 20: 221-223.
- , 1972. Amphipodes des milieux portuaires. - Tethys 3 (1971):255-264.
- , 1972. Invertébrés marins des XII<sup>ème</sup> et XV<sup>ème</sup> expéditions antarctiques françaises en Terre Adélie. 10. - Amphipodes gammariens. - Tethys. Suppl. 4:157-238. (An important report on 54 species, including the following new taxa: Gnathiphimedia incerta, Nodotergum (Acanthonotozomatidae), N. bicarinatum, Paracanthonotozoma, P. trispinosum, Parapanoploea langirostris, ? Pariphimediella imparidentata, ? Hippomedon macrocephalus, Kerguelenia adeliensis, Lepidepecreella tridactyla, Orchomene arnaudi, Supepimeria, S. geodesiae.)
- BERREUR - BONNENFANT, J., 1971. Etude comparée du testicule de quelques Crustacés gonochoriques ou hermaphrodites. - Archs Zool.exp.gén. 112:375-395.
- & M. CARRÉ - LECUYER, 1971. Etude expérimentale de l'activité de la zone germinative testiculaire chez Orchestia gammarella (P), Crustacé Amphipode. - C.-r. Séanc. Soc.Biol. 165:458-460.
- BERRILL, M. 1971. The embryonic behaviour of Caprella unica (Crustacea: Amphipoda). - Can.J.Zool. 49:499-504.
- BJARNOV, N., 1972. Carbohydases in Chironomus, Gammarus and some Trichoptera larvae. - Oikos 23:261-263.
- BLANCHET, M.-F. & H. CHARNIAUX - COTTON, 1971. Contrôle du déclenchement et de la durée de la période D du cycle d'irtermue par l'ecdystérone, chez le Crustacé Amphipode Orchestia gammarella (Pallas): Interaction avec la vitellogénèse. - C.-r. Séanc.hebd.Acad.Sci.Paris, Ser.D. 272:307-310.
- BOU, Cl., 1971. Parasalentinella rouchi n.g., n-sp., des eaux souterraines des Pyrénées françaises (Amphipoda, Gammaridae). - Ann.Spéléol. 26:481-494.
- BOUSFIELD, E.L., 1971. Amphipoda of the Bismarck Archipelago and adjacent Indo-Pacific Islands. - Steenstrupia 1:255-293.

Published August 5, 1971. (New taxa: Melita latimerus, Orchestia samoana, O. anoquesana, Parorchestia macrochela, P. similis, Brevitalitrus (type sp.: Talitrus hortulanus Calman, 1912), B. stephenseni, B. wolffi, B. dyaulanus; Keys to the Orchestia floresiana - group of species and to Brevitalitrus are also provided).

- BOUSFIELD, E.L. & J.W. ELWOOD, 1971. A new Gammarus (Crustacea: Amphipoda) from Tennessee. - Am.Midl.Nat. 85:247-253.
- BOWMAN, Th.E., 1971. The case of the nonubiquitous telson and the fraudulent furca. - Crustaceana 21:165-175.
- BRATTEGARD, T. & W. VADER, 1972. A collection of Peracarida from Møre and Romsdal, north-western Norway. - Sarsia 49:33-40.
- BRUN, B., 1971. Variations génétiques de la couleur des oeufs chez quelques espèces de Gammares (Crustacés, Amphipodes). Bull.Soc.zool.Fr. 96:49-52.
- BRUNEL, P., 1971. Aperçu sur les peuplements d'invertébrés marins des fonds meubles de la Baie de Gaspé, 1956-1960. - Trav.Pêcheries Quebec 38:679-710.
- CHAMBERS, M.R., 1971. The dominance, production and utilization of Gammarus tigrinus (Sexton) in the exposed Phragmites reed beds of the Tjeukemeer (Holland). - Hidrobiologia 12: 297-303.
- CHINDONOVA, Yu.G., S.-I. LJOVUSHKIN & N.A. ZARENKOV, 1972. Yacov Avadievich Birstein (7<sup>th</sup> April 1911- 8<sup>th</sup> July 1970). - Crustaceana 22:103-112. (with a bibliography).
- CONNES, R., J. PARIS & J. SUBE, 1971. Réactions tissulaires de quelques démisponges vis-à-vis de leurs commensaux et parasites. - Naturaliste can. 98:923-935. (i.a. Perrierella audouiniana).
- CRAIG, P.C., 1971. An analysis of the concept of lunar orientation in Orchestoidea corniculata (Amphipoda). - Anim.Behav. 19:368-374.
- CROKER, R.A., 1971. A remarkable new amphipod genus from Eniwetok Atoll lagoon. - Pacif. Sci. 25:382-386. (Jerbarnia mecochira n.gen. n-sp., a gammarid with elongate gnathopod 2)
- , 1971. A new species of Melita from the Marshall Islands, Micronesia. - Pacif.Sci. 25:100-108.

- CULVER, D.C. & Th.L. POULSON, 1971. Oxygen consumption and activity in closely related amphipod populations from cave and surface habitats. - *Am.Midl.Nat.* 85:78-84.
- CURRY, A., R.F. GRAYSON & T.D. MILLIGAN, 1972. New British records of the semi-terrestrial amphipod Orchestia cavimana. - *Freshwat. Biol.* 2:55-56.
- DADSWELL, M.J., 1971. Pontoporeia affinis - Fish food or pollution index? - *Trail and Landscape (Ottawa Field-Nat. Club)* (1971):87-92.
- DAHL, E., H. EMANUELSSON & C.v.MECKLENBURG, 1971. (Pheromone transport in a crustacean and a method for the study of chemoreception). - *Svensk Naturv.* (1971):179-184. (in Swedish. Pheromone transport in Gammarus duebenii studied by means of autoradiography).
- DANCAU, D., 1971. Sur un nouvel Amphipode sou terrain de Roumanie, Niphargus alutensis n.sp. - *Trav.Inst.Spéléol. Emile Racovitza* 10:209-215.
- , 1972. L'état actuel de nos connaissances sur le genre Niphargus en Roumanie. - *Acta Niphargus-Symp.* (1969):55-59.
- DEDYU, I.I., 1971. (Distribution and number of species of the family Corophiidae (Crustacea, Amphipoda) in the Dniesterbasin) - *Hidrobiologia* 12:461-466. (in Russian).
- , 1972. (The reciprocal relation between the different genetic groups of the orders Amphipoda and Mysidacea). - *Revue roum. Biol., Ser.Zool.*, 17:153-158. (in Russian).
- DEXTER, D.M., 1971. Life history of the sandy-beach amphipod Neohaustorius schmitzi. *Mar.Biol.* 8:232-237.
- , 1972. Comparison of the community structures in a pacific and an atlantic Panamanian sandy beach. - *Bull.mar.Sci.Gulf.Caribb.* 22:449-462.
- DONNER, K.O., 1971. On vision in Pontoporeia affinis and P.femorata - *Commentat.biol.* 41:1-17.
- ENRIGHT, J.T., 1971. Heavy water slows biological timing processes. - *Z.vergl.Physiol.* 72:1-16.

- ESCOFET, A., 1971. (Marine Amphipoda from the province of Buenos Aires. II. Observations on the genus Bathyporeiapus, with the description of B.ruffoi n.-sp.). - Neotropica 17: 107-115. (in Spanish, with English summary).
- ESPINOSA, L.R. & W.E. CLARK, 1972. A polypropylene light trap for aquatic invertebrates. - Calif.Fish. Fame 58:149-152.
- EVANS, F. & M. SHEAFER, 1972. Host species of the hyperiid amphipod Hyperoche medusarum (Kröyer) in the North Sea. - Crustaceana, Suppl. 3:275-276.
- FAURE, G., 1972. Contribution a l'étude bionomique et écologique des peuplements des plages de l'Ile de Ré (Cote Atlantique française). - Tethys 3 (1971):629-637.
- FIELD, J.G., 1971. A numerical analysis of changes in the soft-bottom fauna along a transect across False Bay, S.Africa. - J.exp.mar. Biol.Ecol. 7:215-253.
- FINCHAM, A.A., 1971. Ecology and population studies of some intertidal and sublittoral sand-dwelling amphipods. - J.mar.biol.Ass.U.K. 51:471-488.
- , 1972. Rhythmic swimming and rheotaxis in the amphipod Marinogammarus marinus (Leach). - J.exp.mar.Biol. Ecol. 8:19-26.
- FRANQUEVILLE, C., 1971. Macroplancton profond (Invertébrés) de la Méditerranée Nord-occidentale. - Tethys 3:11-56.
- FURCHT, K., 1972. Der Einfluss einer Vorbehandlung mit konstanten und wechselnden Temperaturen auf die Hitzeresistenz von Gammarus salinus und Idotea baltica. - Mar.Biol. 15: 12-34.
- GAMBLE, J.C., 1971. The responses of the marine amphipods Corophium arenarium and C.volutator to gradients and to choices of different oxygen concentrations. - J.exp.Biol. 54: 275-290.
- GAUFIN, A.R. & S. HERN, 1971. Laboratory studies on tolerance of aquatic insects to heated waters. - J.Kansas entom.Soc. 44:240-245. (includes work on Gammarus).
- GELDIAY, R., A. KOCAKATAN & G. KRAPP-SCHICKEL, 1971. Some littoral amphipods from the Gulf of Izmir. - Memorie Mus.Civ.Stor. Nat.Verona 18:369-387 (with a redescription of Liljeborgia dellavallei)

- GIBERT, J. 1971. Analyse électrophorétique des protéines de Niphargus (Crustacés Amphipodes hypogés) en fonction de facteurs physiologiques, écologiques et systématiques. - Diss. Lyon 1971.
- 1971. Appareil circulatoire et circulation sanguine de Niphargus virei. Bull.Soc.zool.Fr. 96:33-43.
  - 1971. Analyses électrophorétiques sur gel de polyacrylamide des protéines de l'hémolymphe de Niphargus virei. - C.-r. hebd.Séanc.Acad.Sci.Paris.Ser.D. 273:1721-1724.
  - 1972. Essais d'application de la taxonomie moléculaire au genre Niphargus. - Acta Niphargus-Symp. 1969:79-83.
  - 1972. Contribution à l'étude de l'hémolymphe de Niphargus virei Chevreux (Amphipode hypogé): ses constituants, leur origine et leur fonction. - Crustaceana, Suppl.3: 342-350. Pls.1-3.
  - , R. GINET & C. MORAND-CHEVET, 1972. Normes pour la description d'unités taxonomiques du genre Niphargus. - Acta Niphargus-Symp. 1969:67-70.
- GIDNEY, A.R., 1971. The light sensitivity and light environment of Corophium volutator. - P.559 (abstract only) in D.J. CRISP (ed.). Proc. Eur.mar.biol.Symp. 4, Bangor 1971.
- GINET, R. 1972. Critères complémentaires pouvant contribuer à la systématique du genre Niphargus. - Acta Niphargus-Symp. 1969:71-77.
- GINSBURGER-VOGEL, T. 1971. Description de cinq mutations naturelles observées chez Orchestia gammarella Pallas (Crustacé Amphipode Talitridae) - C.-r. Séanc.Soc.Biol.165:1519-1522.
- 1972. Intersexualité des voies déférentes et inversion naturelle du sexe chez Orchestia gammarella Pallas (Crustacés, Amphipodes, Talitridae). - C.-r. hebd. Séanc.Acad.Sci. Paris.Ser.D., 274:3449-3452.
  - 1972. Inversion des femelles d'Orchestia gammarella Pallas (Crustacés, Amphipodes, Talitridae) en néomâles fonctionnels par greffe de glandes androgènes avant la mue de première différenciation externe du sexe. - ibid.274:3606-3609.

- GOLIKOV, A.N. & N.L. TZVETKOVA, 1972. (The use of the paleoecological method on evolutive formations). - Dokl.Akad.Nauk SSSR 202:953-956. (in Russian. In a footnote on p.954 Tzvetkova diagnoses Spinulogammarus n.subg., as follows: A subgenus of Anisogammarus, characterized by the presence of spines not only on the urosome, but also on pleon segments 1-3, and by the absence (usually) of long setae on metasome, urosome, pereopods 3-5, telson and uropod 3; the lateral cephalic lobes have in these species an almost vertical, straight anterior margin with somewhat rounded upper and lower corners. Uropod 3 with weakly developed inner ramus and biarticulate outer ramus. Type species: Gammarus ochotensis Brandt, 1851. Other species: Anisogammarus anandalei, A.atchensis, A.jesoensis, A.oregonensis, A.spaskii, A.subcarinatus. I have copied Tzvetkova's diagnosis here, as by its publication in a footnote in a Russian ecological paper it is easily overlooked. Dr. Gordon Karaman kindly translated the diagnosis for me from the original Russian.
- 1972. The ecological principle of evolutionary reconstruction as illustrated by marine animals. - Mar.Biol. 14:1-9.
- GRAF, F. 1971. Présence de cellules a urates chez l'amphipode hypogé Niphargus. - C.-r. hebdom.Séanc.Acad.Sci.Paris. Ser.D.272: 2239-2242.
- 1972. Action de l'ecdystérone sur la mue, la cuticle et le métabolisme du calcium chez Orchestia cavimana Heller (Crustacé, Amphipode, Talitridaé). - ibid, 274:1731-1734.
- GRAS, J.M.J.F. 1971. Range extension in the period 1968-70 of the alien amphipod, Gammarus tigrinus Sexton, 1939, in the Netherlands. - Bull.zool.Mus.Univ.Adam.2:5-9.
- & A.M.J. MAASEN, 1971. Les Gammaridés des eaux continentales et saumâtres du sud-est de la région armoricaine et du nord du bassin d'Aquitaine. - Bijdr.Dierk. 41:52-60.
- GREZE, I.I. 1971. (On the distribution and composition of the amphipod fauna of the Red Sea). - Pp. 111-141 in Benthos shelfa Krasnogo morja (Shelf-benthos of the Red Sea), Izd. "Naukova Dumka", Kiev. (in Russian. No new species described, but the author figures a number of taxa which she could not, with the literature at her disposal, identify with known species).

- 1971. (A comparative study of feeding of some amphipod species occurring in both the Mediterranean and Black Seas).  
- Pp.52-63 in Eksped. issled. v Sredizemnom more. 66 reis "Akademik A.Kovalevsky" v mae-iyule 1970, Izd. "Naukova Dumka", Kiev. (in Russian).
  - 1972. (Main features of the life cycle of Gammarus olivii in the Black Sea). - Zool.Zh. 51:803-811. (in Russian)
  - 1972. (Growth and dynamics of the population of Pleonexes gammaroides of the Black Sea). - Ekol.Issled. Donnykh Organismov 26:27-39. (in Russian)
  - 1972. Sur quelques rythmes du cycle biologique des especes d'Amphipodes de la Mer Noire presentant des populations nombreuses. - Mar.Biol. 16:75-80. (the following species are dealt with Amphithoe vaillanti, Pleonexes gammaroides, Erichtonius difformis, Dexamine spinosa, Gammarus insensibilis and G.olivii.)
- GURJANOVA , E.F. 1972. (Some new species of amphipods (Amphipoda, Gammaridea) from the northwestern Pacific and the High Arctic.) - Trudy zool.Inst. 51:129-200. (in Russian, not seen).
- HALCROW, K. 1971. Cellulase activity in Gammarus oceanicus. - Crustaceana 20:121-124.
- HANSEN, K.L., E.G. RUBY & R.L. THOMPSON, 1971. Trophic relations in the water hyacinth community. - Q.Jl.Fla Acad.Sci. 34: 107-113. (with Hyalella azteca as principal herbivore).
- HARADA, E. 1971. A new amphipod of the genus Siphonocetes from the shallow bottom of southern Japan, with reference to the diagnoses of the genus and its species. - Publs. Seto mar. Biol.Lab. 18:355-378.
- HARGRAVE, B.T. 1972. Prediction of egestion by the deposit - feeding amphipod Hyalella azteca. - Oikos 23:116-124.
- HART, C.W. 1971. A new species of parasitic ostracod of the genus Acetabulastoma (Paradoxostomatidae, Paradoxostominae) with a discussion of the copulatory appendage homologies. - Notul.Nat. 442:1-11. (An ostracod from the amphipod, Ampithoe humeralis, from the U.S.A. west coast).

- HARTNOLL, R.G. 1971. The relationship of an amphipod and a spider crab with the snakelocks anemone. - Ann.Rep.mar.biol. Stn.Port Erin 83:37-42. (Melita obtusata as a commensal of Anemonia sulcata).
- HESSLER, R.R., Y.D. ISAACS & E.L. MILLS, 1972. Giant amphipod from the abyssal Pacific Ocean. - Science, N.Y. 175:636-637
- HILSENHOF, W.L. 1971. Changes in the downstream insect and amphipod fauna caused by an impoundment with a hypolimnion drain. - Ann.ent. Soc.Am. 64:743-746.
- HOLSINGER, J.R. 1971. A new species of the subterranean amphipod genus Allocrangonyx (Gammaridae), with a redescription of the genus and remarks on its zoogeography. - Int.J. Speleol. 3:317-331, 7 Pls.
- & C. HOLSINGER, 1971. Observations on the population ecology of the cavernicolous amphipod crustacean Crangonyx antennatus Packard. - Virginia Jl.Sci. 22:97 (abstract only).
- & W.L. MINCKLEY, 1971. A new genus and two new species of subterranean amphipod crustaceans (Gammaridae) from Northern Mexico. - Proc.biol.Soc.Wash.83:425-444 (not seen).
- HOSHIDE, K. 1971. Studies on gregarines from Japan 2. Cephaloidophora anisogammari and C.elongata n.sp. from Amphipoda. - J.Fac.Sci.Hokkaido Univ., Ser.6, Zool. 18:106-192 (Hosts: Anisogammarus pugettensis and Hyale schmidtii).
- HOWARD, J.D. 1971. Amphipod bioturbate textures in recent and Pleistocene beach sediments. - Pp.213-223 in J.D. Howard et al.: Recent advances in Paleocology and Technology. Washington D.C. 1971.
- HOWSE, H.D., S.L. NADOLSKI & K.M. PERRY, 1972. Light microscopy of sections of glutaraldehyde - fixed, bulk-stained and plastic-embedded small crustaceans. - Trans. Am.micr.Soc. 91:70-72.
- HULTIN, L. 1971. Upstream movements of Gammarus pulex pulex (Amphipode) in a South Swedish stream. - Oikos 22:329-347.
- HYNES, H.B.N. & F. HARPER, 1972. The life histories of Gammarus lacustris and G.pseudolimnaeus in southern Ontario. - Crustaceana, Suppl. 3:329-341.

- INGLE, R.W. 1972. The proposed suppression of the name Oniscus bicaudatus Linnaeus, 1761, the earliest available name for Corophium volutator (Pallas, 1766); the selection of neotypes for C.volutator and for C.bonnelii (sic!) H.Milne-Edwards, 1980 (Amphipoda, Corophiidae). - Crustaceana, Suppl. 3:326-328.
- JÄGERSKIÖLD †, L.A. 1971. A survey of the marine benthonic macrofauna along the Swedish West coast 1921-1938. - Acta R.Soc.Sci.Litt. gothob., Zool. 6:1-147. (Lists localities for 150 species of Amphipoda).
- JAZDZEWSKI, K. 1971. (Ecology of Crustacea Malacostraca in the Bay of Puck). - Acta biol.med.Soc.Sc.Gedan. 16:9-77. (in Polish).
- JONES, D.A. 1971. A new light trap for plankton. - Pp. 487-493 in D.J. CRISP (ed.). Proc.Eur.mar.biol.Symp. 4:, Bangor 1971
- JOSEPHSON, R.K. & K.W. FLESSA, 1972. Cryolite: A medium for the study of burrowing aquatic organisms. - Limnol.Oceanogr. 17:134-135
- KARAMAN, G.S. 1971. XXVIII. Beitrag zur Kenntnis der Amphipoden. Das Männchen der Art Longigammarus bruni G.Karaman 1970 (Gammaridae). - Zool.Anz. 186:291-296.
- 1971. XXX. Beitrag zur Kenntnis der Amphipoden. Ueber einigen Amphipoden aus Griechenland und Kleinasien. - Acta Mus.maced.Sci.nat. 12:21-40 (mainly Echinogammarus spp., among which E.thoni antalyae n.ssp.)
- 1971. Ueber einige neue und schon bekannte Arten der Gattung Leucothoe (Fam. Leucothoidae) aus der Adria sowie dem Mittelmeer. XXXIII Beitrag zur Kenntnis der Amphipoden. - Memorie Mus.Civ. Stor.Nat. Verona 19:57-71 (with one new species. Leucothoe oboa).
- 1971. Zum Problem der Seba-Arten: Seba aloe n.sp. und Seba armata (Chevreux) (Fam.Sebidae). XXXV. Beitrag zur Kenntnis der Amphipoden. - ibid. 19:73-90.
- 1972. XXXVII contribution to the knowledge of the Amphipoda. Niphargus asper, n.sp. Echinogammarus foxi (Schell.) and E.stocki G.Kar. (fam. Gammaridae) from Yugoslavia. - Acta Mus.maced. Sci.nat. 13: 1-18.

- KARAMAN, G.S. 1972. XXXVIII contribution to the knowledge of the Amphipoda. On the genus Typhlogammarus (Schäferna) (fam. Gammaridae) from Yugoslavia. - Fragm. balcan 9:21-34 (with T.mrazeki heteropalpus n.ssp.)
- 1972. Le probleme du genre Niphargus en Yougoslavie. - Acta Niphargus-Symp. 1969:1-10.
- & S. RUFFO, 1971. (Contribution to the knowledge of the Mediterranean species of the genus Maera). - Memorie Mus.Civ.Stor.Nat.Verona 19:113-176. (in Italian with English summary. Deals with 9 species, of which M.sodalis, M.schieckei and M.pachytelson are new).
- & U. SCHIECKE, 1971. Neubeschreibung eines interessanten mediterranen Amphipoden: Carangoliopsis spinolosa Ledoyer, 1970 (Gammaridea, Haustoriidae). - ibid. 19:91-102
- KEITH, D.E. 1971. Substrate selection in caprellid amphipods of southern California, with emphasis on Caprella californica and C.equilibra. - Pacif.Sci. 25:387-394.
- KENSLEY, B. 1971. Amphipoda from southern Angola. - Ann.S.Afr.Mus. 57:149-156. (not seen).
- KOVALCHUK, T.V. 1971. (Ecology and dynamics of Pontogammarus maeoticus in the Kakhovsky reservoir). - Hydrobiol.Zh. 4: 73-76. (in Russian).
- 1972. (Length-weight relationships of the amphipods Pontogammarus maeoticus (Sow.) and Pontogammarus crassus (G.O.Sars)). - ibid. 8:76-77 (in Russian).
- KRAPP-SCHICKEL, G. 1971. Meeresamphipoden aus Taranto. - Memorie Mus.Civ.Stor.Nat.Verona 18:343-367.
- KRUGLOVA, V.M., E.M. REIKH & L.N. TAPILSKAYA, 1972. (On the result of the acclimatization of Corophium sowinskyi (Mart.) in the Veselovskian Reservoir). - Hydrobiol.Zh. 8:83-86 (in Russian).
- KUDRYASHOV, V.A. 1972. (Population structure of the amphipod fauna in the intertidal zone of the Shantarskie islands (Sea of Okhotsk)). - Zool.Zh. 51:197-207. (in Russian).
- 1972. On a new species of Dogielinotus (Amphipoda) from the Sea of Okhotsk. - Crustaceana, Suppl. 3:246-250.

- KÜHNE, H. 1971. The identification of wood-boring organisms. - Pp. 66-88 in: GARETH JONES, E.B. & S.K. ELTRINGHAM (ed.). Marine borers, fungi and fouling organisms of wood. Proc. OECD workshop 1968. OECD, Paris, 1971.
- LABOURG, P.J., S. PINKSTER & J.H. STOCK, 1971. Les Amphipodes du genre Gammarus dans le bassin d'Arcachon. - Bydr.Dierk. 41:31-36.
- LAUBITZ, D.R. & E.L. MILLS, 1972. Deep-sea Amphipoda from the western North Atlantic Ocean. Caprellidae. - Can.J.Zool. 50:371-383. (including Thorina elongata n-sp. and Protoaeginella muriculata n-gen. n-sp.)
- LAVAL, Ph. 1972. Comportément, parasitisme et écologie d'Hyperia schizogeneios (Amphipoda Hypéride) dans le plancton de Ville franche-sur Mer. - Ann.Inst.Océanogr. 48:49-74.
- LEDOYER, M. 1972. Amphipodes gammariens vivant dans les alveoles des constructions organogenes récifales intertidales de la région de Tuléar (Madagascar). Etude systématique et écologique. - Tethys, Suppl. 3:165-286. (New taxa: Iphimedia grossimana, Ampelisca spinicaudata, Aorchoides (Aoridae), A.dilatata, Lemboides bidentata, Lembopsis palmatus, Lembos isochelatus, Dexaminella rotundicoxa, Maera tulearensis, Leucothoe crenatipalma, Leucothopsis (Leucothoidae) Aristias madagascarensis and Parapleustes barnardi. Many other species are redescribed).
- LIM, K.H. & W.D. WILLIAMS, 1971. Ecology of Austrochiltonia subtenuis (Sayce). - Crustaceana 20: 19-24.
- LOURENS, J.H. 1972. Range extension of the alien amphipod, Gammarus tigrinus Sexton, 1939, in the Netherlands, in 1971. - Bull.zool.Mus.Univ.A'dam 2:115-119.
- LOWRY, J.K., 1972. Taxonomy and distribution of Microprotopus along the east coast of the United States (Amphipoda, Isaeidae). - Crustaceana, Suppl. 3:277-286. (M.rangeyi Wigley and M.shoemakeri n-sp.)
- MACQUARÉ-MOULIN, Cl. 1972. Modifications des réactions photocinétiques des Péracaridés de l'hyponeuston nocturne en fonction de l'importance de l'éclairement. - Tethys 3: (1971): 897-920

- MASSÉ, H. 1972. Contribution a l'étude de la macrofaune de peuplements des sables fins infralittoraux des cotes de Provence. 6. Données sur la biologie des especes. - Tethys 4: 63-84.
- MATHIAS, J.A. 1971. Energy flow and secondary production of the amphipods Hyaella azteca and Crangonyx richmondensis occidentalis in Marion Lake, Br.C. . - J.Fish.Res.Bd.Can. 28:711-726.
- MATHIEU, J. 1971. Influence de la durée d'acclimatation thermique sur la durée de survie aux hautes températures, chez Niphargus longicaudatus (Amphip. Gammar. des eaux souterraines) - Naturaliste can. 98:59-68.
- MCCAIN, J.C. 1971. A new deep-sea species of Epimeria from Oregon. - Crustaceana 20:159-166.
- & W. SCOTT GRAY, 1971. Antarctic and subantarctic Caprellidae (Crustacea: Amphipoda). - Antarct.Res.Ser. 17: 111-139. (not seen; contains i.a. 6 new species).
- 1972. Marine invertebrates from Adelie Land, collected by the XII th and XV th French antarctic expeditions 11. Amphipoda Caprellidea. - Tethys, Suppl. 4:239-242.
- MCGRORTY, S. 1971. Salinity as a factor affecting the distribution of Bathyporeia spp. (Crustacea: Amphipoda). - Vie Milieu. Suppl. 22:119-133.
- MCKENZIE, K.G. 1972. New data on the ostracode genera Laocoonella, Redekea and Aspidoconcha; with a key to the family Xestoleberididae and a resume of symbiosis in Ostracoda. - Beaufortia 19:151-162.
- MCLUSKY, D.S. 1971. Some effects of salinity on the mud dwelling euryhaline amphipod, Corophium volutator. - Vie Milieu, Suppl. 22:135-143.
- MEADOWS, P.S. & J.I. CAMPBELL, 1972. Habitat selection by aquatic invertebrates. - Adv.mar.Biol. 10:271-382 (An important review paper).
- MENZIES, R.J. & R.Y. George, 1972. Temperature effects on behavior and survival of marine invertebrates exposed to variations in hydrostatic pressure. - Mar.Biol. 13:155-159.

- MEUSY, J.-J., H. JUNERA & Y. CROISILLE, 1971. Recherche de la 'fraction protéique femelle' chez les Crustacés Amphipodes Orchestia gammarella Pallas ayant subi une inversion expérimentale du sexe. - C.-r. hebd.Séanc. Acad. Sci.Paris, Ser. D, 273:592-594.
- MEYERING, M.P.D. 1971. Die Gammarus - Fauna der Schlitzlerländer Flieszgewässer. - Arch.Hydrobiol. 68:575-608.
- 1972. Physiologische Beiträge zur Frage der systematischen Stellung von Gammarus pulex und G.fossarum. - Crustaceana, Suppl. 3:313-325.
- 1972. Zur Methodik der Driftmessung im Rahmen produktionsbiologischer Untersuchungen in Flieszgewässern. - Verh.dt.zool.Ges. 65:69-73 (Reports work on Gammarus fossarum) .
- 1972. Experimentelle Untersuchungen zur Drift und Aufwanderung von Gammariden in Flieszgewässern. - Arch. Hydrobiol. 70:133-205.
- MILLS, E.L. 1971. Deep-sea Amphipoda from the western North Atlantic Ocean. The family Ampeliscidae. - Limnol. Oceanogr. 16:357-386. (not seen).
- 1972. T.R.R. Stebbing, the Challenger and knowledge of deep-sea Amphipoda. - Proc.R.Soc.Edinb. 72:B:69-87.
- MONOD, Th. 1971. Sur quelques Crustacés de Tuléar (Madagascar). - Tethys, Suppl. 1:165-192 (with a redescription of Cymadusa filosa).
- MORAND-CHEVAT, C. 1972. Bilan actuel du genre Niphargus en France et en Espagne. - Acta Niphargus-Symp. 1969:25-31.
- MORDUKHAI-BOLTOVSKOI, F.D. & S.M. LJAKCHOV, 1972. (A new amphipod species of the genus Steno-gammarus (Gammaridae) in the Wolga Basin. - Zool.Zh. 51:21-27 (in Russian).
- MÜLLER, G.J. 1971. Neue Angaben über die Bionomie des Zoobenthos der Sedimentböden im Litoralsystem an der Westküste des Schwarzen Meeres. - Cercetari marine I.R.C.M. 1:167-194.
- MEYERS, A.A. 1971. Breeding and growth in laboratory-reared Microdeutopus gryllotalpa. - J.nat.Hist. 5:271-277.
- NAIR, K.K.C. 1972. A note on an amphipod swarm along the south-west coast of India. - Curr.Sci. 41:185-186 (Concerns Hyperia sibaginis).

- NAY, D. de. 1971. Etude, chez Orchestia mediterranea (Crustacé Amphipode) A.Costa, des testicules présentant un hermaphrodisme rudimentaire et des ovaires de femelles masculinisées. - C.-r. Séanc.Soc.Biol. 165:989-993.
- PERSOONE, G. 1971. A simple volumeter for small invertebrates. - Helgoländer wiss. Meeresunters. 22:141-143.
- PINKSTER, S. 1971. Members of the Gammarus pulex - group from North Africa and Spain, with description of a new species from Morocco. - Bull.zool.Mus.Univ.Adam 2:45-52.
- & J.H. STOCK, 1971. Sur deux Echinogammarus limniques nouveaux du bassin d'Aquitaine. - Bÿdr.Dierk. 41:37-51.
- - 1972. Members of the Echinogammarus simoni-group and the genus Eulimnogammarus (Crustacea-Amphipoda) from the Iberian Peninsula and North Africa, with description of a new species. - Bull.zool.Mus.Univ.A'dam 2:85-115 (Echinogammarus obtusidens n-sp.)
- PLJAKIC, M.A. 1971. Différenciation des Amphipodes dans les conditions de la g n se du relief et de l' volution du syst me hydrographique danubien en Serbie orientale. - Z.zool. Syst.Evolutionsforsch. 9:156-158.
- PREECE, G.S. 1971. The swimming rhythm of Bathyporeia pilosa (Crustacea, Amphipoda). - J.mar.biol.Ass.U.K. 51:777-791.
- 1971. The ecophysiological complex of Bathyporeia pilosa and B.pelagica (Crustacea: Amphipoda). II Effects of exposure. - Mar.Biol. 11:28-34.
- RABINDRANATH, P. 1971. Two new gammaridean amphipods from the Gulf of Mannar, S. India. - Hydrobiologia 37:157-172. (Arugella indica and Orchomenella mannarensis)
- 1971. A new liljeborgiid amphipod from Kerala, India. -- Biol.Bull.mar.biol.Lab.Woods Hole 140:482-488 (Listriella similis).
- 1971. Haustoriid amphipods from India. - Hydrobiologia 38:521-539. (Redescriptions of Platyischnopus herdmani and 2 Urothoe species, and description of U.platy-dactyla n-sp.)
- 1971. On a collection of Isaeidae (Crustacea: Amphipoda) from the southern Indian Ocean. - Bÿdr. Dierk. 41:67-93 (not seen).

- RABINDRANATH, P. 1972. Three species of gammaridean Amphipoda (Crustacea) from the Trivandrum coast, India. - Zool. Anz. 188: 84-97. (i.a. Metatiron new genus, erected for Pseudotiron brevidactylus Pillai).
- 1972. Marine Gammaridea (Crustacea: Amphipoda) from the Indian region. Family Ampithoidae. - Mar. Biol. 14: 161-178. (i.e. Ampithoe serraticauda sp-n., A. (Pleonexes) auriculata sp-n. and Cymadusa imbroglio sp-n.
- 1972. A new species of Podocerus Leach (Amphipoda) with a redescription of Podocerus brasiliensis (Dana, 1853) - Crustaceana, Suppl. 3:299-307.
- 1972. Marine Gammaridea (Crustacea: Amphipoda) from the Indian region: family Amphilochidae. - Hydrobiologia 39:509-526 (not seen).
- 1972. Studies on gammaridean Amphipoda (Crustacea) from India. - Bull. zool. Mus. Univ. Adam 2:155-17?. (New taxon: Pontogeneia barnardi. Redescriptions of Perioculodes megapleon and Quadrivisio bengalensis)
- RAKUSA- SUSZCZEWSKI, S. 1972. The biology of Paramoera walkeri Stebbing (Amphipoda) and the Antarctic sub-fast ice community. - Polskie Archiwum Hydrobiol. 19:11-36.
- ROUX, A.-L. 1971. Observations complémentaires sur la caryologie des Gammaridae: la garniture chromosomique de Gammarus lacustris. - Bull. mens. Soc. linn. Lyon 40:173-175.
- 1971. Les Gammares du groupe 'pulex'. Essai de systématique biologique 2. Quelques caractéristiques écologiques et physiologiques. - Arch. Zool. exp. gén. 112:471-503.
- 1971. idem. 3. Essais d'hybridation et examen caryologique. - ibid. 112:819-868.
- 1971. Sympatrie, allopatrie et isolement sexuel interspécifique chez les Gammares du groupe pulex (Crustacés amphipodes). C.-r. hebdomadaire Séances Acad. Sci. Paris, Ser. D. 273: 408-410.
- ROUX, C. 1972. Les variations de la courbe métabolisme température de Gammarus lacustris G.O. Sars (Crustacé, Amphipoda) sous l'influence de divers facteurs écologiques. - Crustaceana, Suppl. 3:287-296.

- RUFFO, S. 1971. Conference on Mediterranean Amphipoda. - Crustaceana 21:224.
- RYGG, B. 1972. Factors controlling the habitat selection of Gammarus duebeni Lillj. (Crustacea, Amphipoda) in the Baltic - Ann.zool.fenn. 9:172-183.
- SANDERS, H.O. & J.H. CHANDLER, 1972. Biological magnifications of a polychlorinated biphenyl (Aroclor 1254) from water by aquatic invertebrates. - Bull.Envir.Contam. Toxicol. 7: 257-263. (i.a. Gammarus pseudolimnaeus).
- SAUDRAY, Y. 1971. Structures cuticulaires fonctionnelles de la pars molaris des mandibules de Talitrus saltator (Montagu) (Crustacea, Amphipoda, Talitridae), étudiées a l'aide du microscope électronique a balayage. - C.-r. hebd.Séanc. Acad.Sci.Paris, Ser.D. 273:2538-2541.
- & J. MARCHAND, 1972. Observations sur la pars molaris des mandibules de quelques Gammaridés (Crustacea, Amphipoda) étudiées a l'aide du microscope électronique a balayage. - ibid. 274:2061-2064.
- SEGERSTRÅLE, S.G. 1971. A note on the occurrence of Gammarus locus-ta and G.inaequicauda in the Baltic Sea. - Ann.zool.fenn. 8:324-325.
- 1971. The distribution and morphology of Pontoporeia affinis f. brevicornis inhabiting North American lakes, with a description of a new aberrant male form from the area. - Commentat. biol. 38:1-19.
- 1971. On summer-breeding in populations of Pontoporeia affinis living in lakes of North America. - ibid. 44:1-18.
- 1971. Light and gonad development in Pontoporeia affinis. - Pp.573-581 in D.J.Crisp (ed.). Proc.Eur.mar.Biol.symp. 4, Bangor 1971.
- 1971. The zoogeographic problem involved in the presence of the glacial relict Pontoporeia affinis in Lake Washington, U.S.A. - J.Fish.Res.Bd-Can. 28:1331-1334.
- 1971. Further data on summer-breeding in Baltic populations of the amphipods Pontoporeia affinis and P.femorata, with comments on the timing problem involved. - Havforsk.Inst.Skr., Helsingf. 235:19-23.

- SHIH, Ch.-T. 1971. Phronimidae of the South Pacific Ocean. - Crustaceana 20:25-45.
- 1971. Note on Phronima affinis Vosseler. - Crustaceana 20:298-300.
- , A.J.G. F'GUEIRA & E.H. GRAINGER, 1971. A synopsis of Canadian marine zooplankton. - Fish.Res.Bd.Can.Bull.176: 1-264.
- SHYAMASUNDARI, K. 1972. The occurrence and distinction of the genera Talorchestia Dana and Orchestia Leach (Talitridae) from Visakhapatnam. - Curr.Sci. 41:30-31.
- 1972. A method for the simultaneous distinction of neurosecretory and mucoid substances in invertebrates. - Curr.Sci. 41:78 (i.e. in Talitridae).
- SINDERMANN, C.J. 1971. Internal defences of Crustacea: a review. - Fishery Bull.Fish Wildl.Serv. U.-S. 69:455-489.
- SIVAPRAKASAM, T.E. 1971. Amphipods of the family Ampithoidae from the Madras coast. - J.mar.biol.Ass.India 12 (1970):64-80. (N.B. Publication date for this and the next two papers is December 1971! New taxa: Ampithoe cavimana and A.platycera)
- 1971. Amphipods of the genus Lembos Bate from the south-east coast of India. - ibid. 12 (1970):81-92. (with two new species. L.quadrimanus and L.griseus)
- 1971. Description of Atylus (Kamehatylus) processifer sp.nov. (Amphipoda: Dexaminidae) from the Gulf of Mannar, India. - ibid. 12 (1970):93-96.
- 1972. A new species of Idunella Sars (Amphipoda, Liljeborgiidae) from India. - Crustaceana, Suppl. 3:308-312.
- SKALSKI, A.W. 1971 (70?). The hypogeous gammarids in Poland (Crustacea, Amphipoda, Gammaridae). - Acta Hydrobiol., Krakow 12 (1970):431-437.
- 1972. Distributions des amphipodes souterrains en Pologne, avec notes sur la variabilité du Niphargus tatrensis - Acta Niphargus-Symp. 1969:47-53.
- SKET, B. 1971. Zur Zoologie und Phylogenie der Gammarini (Amphipoda). - Bull.scient.Cons.Acads RPF Yougosl., Sect.A., 16: 6 (not seen. Lagunogammarus n.gen., sp.typ.Gammarus zad-dachi Sexton, 1912)

- SKET, B. 1971. Vier neue aberrante Niphargus-Arten (Amphipoda, Gammaridae) und einige Bemerkungen zur Taxonomie der Niphargus-ähnlichen Gruppen. - Raspr.slov.Akad.Znan.Umet.Ljubljana 14:1-25.
- STEELE, D.H. 1972. Some aspects of the biology of Gammarellus homari (Crustacea, Amphipoda) in the northwestern Atlantic. - J.Fish.Res.Bd.Can. 29:1340-1343 (with a most useful table, with differences between G.homari and G.angulosus)
- & V.J. STEELE, 1972. Biology of Gammarellus angulosus (Crustacea, Amphipoda) in the northwestern Atlantic. - ibid. 29:1337-1340.
- STOCK, J.H. 1971. A revision of the Sarothrogammarus-group (Crustacea, Amphipoda). - Býdr. Dierk. 41:94-129 (see also Býdr. Dierk. 42, p.91, where the genus name is corrected to SAROTHROGAMMARUS. This monographic study deals with the genera Sarothrogammarus (7 sp.p., 1 new), Neogammarus (2 spp 1 new), Comatogammarus n.g. (type: Sarothrogammarus ferganensis), Rhipidogammarus n.g. (type: Gammarus rhipidiophorus) (2 spp., 1 new), and Longigammarus).
- 1972. L'état actuel des connaissances sur les genres du groupe Niphargus du Benelux. - Acta Niphargus-Symp. 1969:33-34.
- & S. PINKSTER, 1972. Echinogammarus fluminensis Pinkster & Stock, 1970 (Amphipoda) found in France and Greece. - Crustaceana, Suppl. 3:297-298.
- STRASKRABA, M. 1972. L'état actuel de nos connaissances sur le genre Niphargus en Tchécoslovaquie et dans les pays voisins. - Acta Niphargus-Symp. 1969:35-46.
- 1972. Les groupements des espèces du genre Niphargus - ibid:85-90.
- SUDARA, S. 1972. Taxonomic problems of the hyperiid amphipods, family Phronimidae, found in the Gulf of Thailand and the South China Sea. - in ANONYMUS (ed.) Marine Fisheries, 3rd Symposium (Bangkok, 26/27 Jan. 1972). Mar.Fish.Lab., Bangkok, 23 pp.
- SUNNER, M., Y. MELANDER & E. HANSEN-MELANDER, 1971. Chromosome staining procedures for whole mounts of eggs and early embryos. - Hereditas 67:150-152. (Experiments with insects and polychaetes).

- SUTCLIFFE, D.W. 1971. Sodium influx and loss in fresh-water populations of the amphipod Gammarus duebeni Lilljeborg. - J.exp.Biol. 54:255-268.
- 1971. The effect of calcium on sodium influx and loss in Gammarus (Amphipoda). - J.exp.Biol. 54: 485-496.
- 1971. Regulation of water and some ions in gammarids. 1. Gammarus duebeni from brackish water and fresh water. - J.exp.Biol. 55:325-344.
- 1971. idem 2. Gammarus pulex. - J.exp. Biol.55: 345-355.
- 1971. idem 3. Three euryhaline species. - J.exp. Biol. 55:357-369.
- SWIFT, D.J.P., J.R. SCHUBEL & R.W. SHELDON, 1972. Size analysis of fine-grained sediments: a review - J.sed.Petrol. 42:122-134.
- THEODORIDES, J. & I. DESPORTES, 1972. Mise en evidence de nouveaux représentants de la famille des Ganymedidae Huxley, Gregarines parasites de Crustacés. - C.-r. hebd. Séanc.Acad. Sci.Paris, Ser.D. 274:3251-3253 (Ganymedes vibiliae n.sp. in Vibilia armata).
- THOMAS, M.L.H. & E. JELLEY, 1972. Benthos trapped leaving the bottom in Bideford river, Prince Edward Island. - J.Fish. Res.Bd.Can. 29:1234-1237.
- TZVETKOVA, N.L. 1972. (Taxonomy of the genus Gammarus Fabr., with description of two new species of Gammarus (Amphipoda, Gammaridae) from the northwestern part of the Pacific Ocean). - Trudy zool.Inst. 51:201-223. (in Russian, not seen).
- UENO, M. 1971. The fauna of the insular lava caves in West Japan. 7. Subterranean Amphipoda. - Bull.natn.Sci.Mus., Tokyo. 14:161-170 (with i.a. Paramoera relictata n.sp.)
- 1971. Subterranean Amphipoda from the islands of Tsushima. - ibid. 14:195-199 (Paramoera tsushimana n.sp.).
- 1971. The fauna of the lava caves around Mt.Fuji-san. 2. Amphipoda and Cladocera (Crustacea). - ibid. 14:219-220.
- VADER, W. 1971. (Podoceropsis nitida (Amphipoda, Photidae), an associate of hermit crabs). - Levende Nat.74:134-137. (Dutch with English summary).

- WADDER, W. 1971. Associations between amphipods and sea anemones. A short review of the literature. - Mimeographed report, Blomsterdalen.
- 1971. Additions to the Amphipoda of northern Norway. - Astarte 4:47-51.
- 1972. Associations between amphipods and molluscs. A review of published records. - Sarsia 48:13-18.
- 1972. (New records of Gammarus zaddachi in western and northern Norway.). - Fauna, Oslo 25:35-38. (Norwegian with English summary).
- 1972. Notes on Norwegian marine Amphipoda. 5. New records of Leptamphopus sarsii (Calliopiidae). - Sarsia 50:25-28.
- VIGNA TAGLIANTI, A. 1972. (Present knowledge on the genus Niphargus in Italy). - Acta Niphargus-Symp. 1969:11-23 (in Italian)
- VINCENT, M. 1971. Écologie et écophysologie des Gammaridés épigés du Centre-Ouest. - Diss.Limoges, 141 pp.
- 1971. Résistance thermique et teneur en sels des eaux chez des Gammarus épigés du Centre-Ouest. - C.-r. Séanc. Soc.Biol. 165:648-650.
- VLASBLOM, A.G. & G. BOLIÉ, 1971. Tolerance of embryos of Marinogammarus marinus and Orchestia gammarella to lowered salinities. - Neth.J.Sea Res. 5:334-341.
- WATLING, L. & D. MAURER, 1972. Marine shallow water amphipods of the Delaware Bay area. U.S.A. - Crustaceana, Suppl. 3:251-266.
- WILDISH, D.J. 1971. Adaptive significance of a biased sex ratio in Orchestia. - Nature, Lond. 233:54-55.
- 1972. Post embryonic growth and age in some littoral Orchestia (Amphipoda, Talitridae). - Crustaceana, Suppl. 3:267-274.
- & V. ZITKO, 1971. Uptake of polychlorinated biphenyls from sea water by Gammarus oceanicus. - Mar.Biol. 9:213-218.
- WILLIAMS, A.B. & K.H. BYNUM, 1972. A ten-year study of meroplankton in North-Carolina estuaries: Amphipods. - Chesapeake Sci. 13:175-192.

- WOLFF, T. 1971. 'Archimede' dive 7 to 4160 metres at Madeira: observations and collecting results. - Vidensk.Meddr. dansk naturh. Foren. 134:127-147.
- 1972. (Crustaceans and sea anemones). - Naturens Verden 1972:217-224. (in Danish. A popular account of associations between these groups of animals).
- YANKOWSKI, A.V. 1971. (Commensological notes. 1. Chonotrichs (Ciliata) on epibionts of Cetacea). - Zool.Zh. 50:1445-1456. (in Russian. i.a. Cyamichona new genus, with 2 new species on the Cyamidae, Cyamus ceti, C.nodosus and C.boopis).
- YOO, K.I. 1971. The biology of the pelagic amphipod, Primno macropa Guer, in the western North Pacific. 1. Systematics. - Korean J.Zool. 14:132-138.
- 1971. Pelagic Hyperiid (Amphipoda - Hyperiidea) of the Western North Pacific Ocean. - J.natn.Acad.Sci.Rep. Korea, Ser.nat.Sci. 10:39-89.
- YOUNG, D.K. & D.C. RHOADS, 1971. Animal-sediment relationships in Cape Cod Bay, Massachusetts. 1. A transect study. - Mar.Biol. 11:242-254.
- ZHURAVEL', P.A. & V.I. ZOLOTAREVA, 1972. (Dimension weight characteristics of Pontogammarus crassus (Grimm) Martynov from the Zoporozhye reservoir). - Hydrobiol. Zh. 8: 80-82. (in Russian).
- VADER, W. 1972. Associations between gammarid and caprellid amphipods and medusae. - Sarsia 50:51-56.

---

Last minute additions

- HOLSINGER, J.R., 1972. The freshwater amphipod crustaceans (Gammaridae) of North America. - Biota of Freshwater Ecosystems, Identification Manual No.5, U.S. Environmental Protection Agency, 89 pp. 32 figs. (hard cover).
- KARAMAN, G.S., 1972. XXXVI contribution to the knowledge of the Amphipoda. On some Echinogammarus and Chaetogammarus species from France and Italy. Echinogammarus stammeri (S. Karaman 1931) and E. tabu n.sp. Glasnik. Titograd 4 (1971): 83-99.

List of amphipod workers

1. Å. Andersson, Naturhistoriska Riksmuseet, Sektionen för  
Evertebratzoologi, S-104 05 Stockholm 50, Sverige
2. S. Andreev, Institut Zoologique et Musée Académie des Sciences  
de Bulgarie, I. Boulevard Ruski, Sofia, Bulgaria
3. H.-G. Andres, Zoologisches Institut und Zoologisches Museum,  
Universität Hamburg, Von-Melle-Park 10, 2000 Ham-  
burg 13, Deutschland (BRD)
4. I. Arimoto, The Museum, Tokyo University of Fisheries 4-5-7  
Konan, minato-ku, Tokyo 108, Japan
5. J.L. Barnard, Division of Crustacea, National Museum of Natural  
History, Smithsonian Institution, Washington D.C.  
20560, U.S.A.
6. G. Becker, Bundesanstalt für Materialprüfung, Unter den Eichen  
86-87, Berlin-Dahlem 45, Deutschland (BRD)
7. D. Bellan-Santini (♀), Station Marine d'Endoume, Rue de la  
Batterie-des-Lions, Marseille 7e, France
8. J. Berreur-Bonnenfant (♀), Laboratoire de Génétique évolutive  
et de Biométrie, C N R S, 91 Gif-s-Yvette, France
9. M. Berrill, Biology Department, Trent University, Peterborough  
(Ontario), Canada
10. C. Bou, Résidence des Charmes, Rue de la Madeleine 81, Albi  
France

11. E.L. Bousfield, National Museum of Canada, National Museum of Natural Sciences, Ottawa K1A 0M8, Canada
12. Th. E. Bowman, National Museum of Natural History, Smithsonian Institution, Washington D.C. 20560, U.S.A.
13. C. de Broyer, Institut Royal des Sciences Naturelles, Rue Vautier 31, Bruxelles, Belgie - Belgique
14. B. Brun, Laboratoire de Biologie Générale Faculté des Sciences, Place Victor Hugo, Marseille (3e), France
15. P. Brunel, Département des Sciences Biologiques, Université de Montreal, C.P. 6128, Montreal (Quebec), Canada
16. G.J. Brusca, Department of Biology, Humboldt State College, Arcata, Calif. 95521, U.S.A.
17. K.H. Bynum, Department of Zoology, University of North Carolina, Chapel Hill (N.Car. 28714), U.S.A.
18. S. Cărauşu, Faculty of Biology, "Al. I. Cuza" University, Jassy, Romania
19. M.C. Carré-Lecuyer (♀), Laboratoire de Génétique évolutive,, C N R S, 91 Gif-sur-Yvette, France
20. F. Cavalieri, Departamento de Entomologia Sanitaria, Instituto Nacional de Microbiologia, Buenos Aires, Argentina
21. H. Charniaux-Cotton (♀), Laboratoire d'Evolution des Êtres Organisés, 105 Boulevard Raspail, 75 Paris 6e, France

22. N. Coineau (♀), Muséum National d'Histoire Naturelle, 57 Rue Cuvier, Paris 5e, France
23. G.A. Cole, Department of Biology, Arizona State University, Tempe (Ar. 85281), U.S.A.
24. C. Christophersen, Institutt for Marin Biologi, Avd. A, Feltlaboratoriet, Chr. Benneckesvei, Oslo - Bygdøy Norge
25. R. Connes, Laboratoire de Biologie Animale, Station de Biologie Marine Lagunaire, Sète, France
26. B. Cooper, Fisheries Management Division, Ministry of Agriculture and Fisheries, P.O. Box 2298, Wellington 1, New Zealand
27. P.C. Craig, Department of Biology, University of California, Santa Barbara (California 93106), U.S.A.
28. G.I. Crawford, c/o British Museum (Natural History), Division of Crustacea, Cromwell Road, London SW 7, England
29. R.A. Croker, Department of Zoology, University of New Hampshire-Durham (N.H. 03824), U.S.A.
30. D.C. Culver, Department of Biological Sciences, Northwestern University, Evanston (Illinois 60201), U.S.A.
31. E. Dahl, Zoologiska Institutionen, Lund, Sverige

32. D. Dancau, Institutul de Speologie "Emil Racovitza", Str. Dr. Capsa 8, Bucuresti, Romania
33. Dang ngoc Thanh, Chaire de Zoologie Invertébrée, Faculté de Biologie, Université de Hanoi, Hanoi, Vietnam (Nord)
34. I.I. Dedyu, Zoological Institute, Academy of Sciences, Moldavian SSR, Kishinev, USSR
35. D.M. Dexter (♀), Institute of Marine Sciences, University of North Carolina, Morehead City (N.C.       ), U.S.A.
36. R.I. Dick, Chemistry Department, University of Cape Town, Cape Town, S. Africa.
37. J. Dorgelo, Laboratory of Animal Physiology, University of Amsterdam, Kruislaan 320, Amsterdam, Holland
38. M.M. Drummond (♀), Victorian Fisheries Department, 605 Flinders Street Extension, Melbourne, (Victoria 3000), Australia
39. M.J. Dunbar, (until 1974), Bedford Institute, Dartmouth (Nova Scotia), Canada
40. K.W. Duncan, Department of Zoology, University of Canterbury, Christchurch, New Zealand
41. C. Elders, Department of Zoology, University of Georgia, Athens (Ga       ), U.S.A.

42. A. Eleftheriou, Marine Laboratory, P.O.Box 101, Victoria Road, Torry, Aberdeen, Scotland
43. R. Elofsson, Zoologiska Institutionen, Lund, Sverige
44. A. Escofet (♀), Instituto de Biología Marina, Casilla de Correo 175, Playa Grande, Mar del Plata, Argentina
45. F. Evans, Dove Marine Laboratory, Cullercoats, North Shields Northumberland, England
46. D. Farrell, Department of Oceanography, Florida State University, Tallahassee (Fla. 32306), U.S.A.
47. H.J. Fearn-Wannan, Mercer House, Associated Teachers Training Institution, Armadale (Victoria), Australia
48. A.A. Fincham, Marine Laboratory, 396-402, The Esplanade, Island Bay, Wellington, New Zealand
49. J.D. Fish, Department of Zoology, University College of Wales, Penglais, Aberystwyth, Wales
50. R.S. Fox, Department of Zoology, University of North Carolina, Chapel Hill (N.Car. 27514), U.S.A.
51. M.F. Gable, Department of Biology, Eastern Connecticut State College, Willimantic (Conn. 06226), U.S.A.

52. J. Gibert (♀), Université Cl. Bernard (Lyon I), Biologie Souterraine, 43. Boulevard du 11.nov. 1918, F-69 Villeurbanne, France
53. R. Ginet, Université Cl. Bernard (Lyon I), Biologie Souterraine, 43. Boulevard du 11.nov. 1918, F-69 Villeurbanne, France,
54. T. Ginsburger-Vogel (♀), Laboratoire de Génétique évolutive C N R S, 91 Gif-sur-Yvette, France
55. T. Gledhill, Freshwater Biological Association, The River Laboratory, East Stoke, Wareham (Dorset), England
56. F. Graf, Laboratoire de Biologie Générale, 6. Boulevard Gabriel, 21- Dijon, France
57. J.M.J.F. Gras (♀), Institute of Animal Taxonomy, Zoological Museum, Pl. Middenlaan 53, Amsterdam, Holland
58. I.I. Greze (♀), Institute of Biology of South Seas, Academy of Sciences USSR, 2, Nahimov Str., Sevastopol, USSR
59. C.L. Griffiths, Zoology Department, University of Cape Town, Rondebosch, Cape Town, S. Africa
60. H.E. Gruner, Zoological Museum, Invalidenstrasse 43, 104 Berlin Deutschland (DDR)
61. E.F. Gurjanova (♀), Zoological Institute, Academy of Sciences USSR, V-164 Leningrad, USSR

62. E. Harada, Biological Laboratory, Yoshida College, Kyoto University, Yoshida, Sakyo-ku, Kyoto, Japan
63. B.T. Hargrave, Marine Ecology Laboratory, Bedford Institute, Dartmouth, (Nova Scotia), Canada
64. C.W. Hart, Academy of Natural Sciences, Philadelphia (Pa ), U.S.A.
65. S. Herodek, Biological Research Institute, Hungarian Academy of Sciences, Tihany, Hungaria
66. S. Hoffer (♀), Marine Sciences Centre, McGill University, Montreal (Quebec), Canada
67. J.R. Holsinger (until 1-7-73): Division of Crustacea, National Museum of Natural History, Smithsonian Institution Washington D.C. 20560, U.S.A.  
Permanent: Department of Biology, Old Dominion University, Norfolk (Va 23508), U.S.A.
68. L.B. Holthuis, Rijksmuseum van Natuurlijke Historie, Raamsteeg 2, Leiden, Holland
69. Sun Yun Hong, Department of Biological Sciences, University of Southern California, University Park, Los Angeles (Calif. 90007), U.S.A.
70. Y. Honma, Sado Marine Biological Station, Niigata University, Niigata, Japan

71. K. Hoshide, Zoological Institute, Hokkaido University, Sapporo,  
Japan
72. J.O. Howard, Skidaway Institute of Oceanography, University  
System of Georgia, 55, West Bluff Road, Savannah,  
(Ga. 31406), U.S.A.
73. D. Hurley, New Zealand, Oceanographic Institute, P.O. Box 8009,  
Wellington, New Zealand
74. G.Husmann, Limnologische Fluszstation, 6407 Schlitz, Deutschland  
(BRD)
75. R. Husson, Laboratoire de Biologie animale et générale, Facul-  
té des Sciences, Université de Dijon, Boulevard  
Gabriel, Dijon, France
76. H.B.N. Hynes, Department of Biology, University of Waterloo,  
Waterloo (Ontario), Canada
77. R.W. Ingle, British Museum (Natural History), Department of  
Zoology, Cromwell Road, London SW. 7, England
78. H. Irie, Faculty of Fisheries, Nagasaki University, Bunkyo-  
machi 1-14, Nagasaki, Japan
79. A.V. Jankowski, Zoological Institute, Academy of Sciences USSR  
W-164 Leningrad, USSR
80. K. Jazdzewski, Uniwersytet lodzki, Zaklad Zoologii Ogólnej, Insty-  
tutu Botaniki i Zoologii, ul. Nowupoludniowa 12-16,  
lodz, Poland
81. S.E. Johnson, Hopkins Marine Station, Pacific Grove (Cal. 93950),  
U.S.A.
92. I. Jones, Department of Biology, California State College, Long  
Beach (Calif. 90801), U.S.A.

83. M.B.Jones, Marine Biological Station, Port Erin, Isle of Man, England
84. N.S. Jones, Address as 83
85. J.W. Jossi, National Marine Fisheries Service, Tropical Atlantic Biology Laboratory, Miami (Fla. 33149), U.S.A.
86. J. Just, Institute of Comparative Anatomy, University of Copenhagen, Universitetsparken 15, Dk-2100 København Ø, Danmark
87. R. Kaim-Malka, Station Marine d'Endoume, Rue de la Batterie-des-Lions, Marseille 7e, France
88. V. Kaneva-Abadieva (♀), Institut Central de Recherches Scientifiques sur la Pisciculture et la Pêche, Varna, Bulgaria
89. E. Kanneworff, Marinbiologisk Laboratoriet, Grønnehave, Helsingør, Danmark
90. G. Karaman, P.O. Box 40, Titograd, Yugoslavia
91. D.E. Keith, Department of Biology, Texan Christian University, Fort Worth, (Texas 76129), U.S.A.
92. B. Kensley, South African Museum, Cape Town, S. Africa
93. A.K. Kimball, Rosenstiel School of Marine and Atmospheric Science, 10 Rickenbacker Causeway, Miami (Fla. 33149), U.S.A.
94. G. Krapp-Schickel, Zoologisches Forschungsinstitut und Museum (♀) Alexander Koenig, Adenauerallee 150-164, 53 Bonn 1, Deutschland (BRD)
95. V.A. Kudrjaschov, Far East University, Biological Faculty, Dept. of Hydrobiology and Ichthyology, Vladivostok 10 U.S.S.R.

96. H. Kühne, Bundesanstalt für Materialprüfung, Unter den Eichen 86-87, Berlin-Dahlem 45, Deutschland (BRD)
97. P.J. Labourg, Station Biologique d'Arcachon, 2.rue du professeur Jolyet, Arcachon (Gironde), France
98. J.-P. Lagardère, Station Marine d'Endoume, Antenne de La Rochelle-C.R.E.O. - Allée des Tamaris, 17-La Rochelle, France
99. D.R. Laubitz (♀), National Museum of Natural Sciences, Ottawa, Canada
100. Ph. Laval, Station Zoologique, 06 Villefranche-sur-Mer, France
101. M. Ledoyer, Station Marine d'Endoume, Rue de la Batterie-des-Lions, 13 Marseille-7e, France
102. Yuk-Maan Leung, Room 4, Allan Hancock Foundation, University of Southern California, University Park, Los Angeles (Calif. 90007), U.S.A.
103. R. Lincoln, British Museum (Natural History), Division of Crustacea, Cromwell Road, London S.W.7, England
104. A.P.M. Lockwood, Department of Oceanography, The University, Southampton, England
105. J.K. Lowry, Department of Zoology, University of Canterbury, Christchurch, New Zealand
106. C. Macquart-Moulin, Faculté des Sciences Naturelles, Hydrobiologie marine, Route Léon, Lechamp-Luminy, Marseille 9e, France
107. E.B. Makkaveeva, Institute of Biology of South Seas, Academy of Sciences UKSSR, 2. Nahimov Str., Sevastopol, USSR
108. R. Margulis, Biological Faculty, Moscow State University, Moscow.  
(♀) USSR

109. A. Mateus, Instituto de Zoologia, "Dr. Augusto Nobre", Universidade de Porto, Porto, Portugal
110. E. de Oliveira Mateus (♀), Address as 109
111. J.A. Mathias, Department of Zoology, University of Michigan, Ann Arbor, (Mich. 48104), U.S.A.
112. H. Matsudo, St. Joseph Hospital, West Alameda & S. Buena Vista Boulevard, Burbank (Cal.           ), U.S.A.
113. D. Maurer, University of Delaware, College of Marine Studies, Field Station, Lewes (Del. 19958), U.S.A.
114. J.C. McCain, Environmental Department Hawaiian Electric Company, P.O. Box 2750, Honolulu (Hawaii 96803), U.S.A.
115. L.R. McCloskey, Marine Biological Laboratory, Woods Hole (Mass. 02543), U.S.A.
116. K.G. McKenzie, British Museum (Natural History), Division of Crustacea, Cromwell Road, London, S.W. 7, England
117. D. McLusky, Department of Biology, University of Stirling, Stirling, Scotland
118. M.P.D. Meyering, Limnologische Flussstation, 6407 Schlitz, Deutschland (BRD)
119. A.D. Michael, Marine Biological Laboratory, Woods Hole (Mass. 02543), U.S.A.
120. W. Micherdziński, Institute of Zoology, Jagiellonian University, ul. Krupnicza 50, Kraków, Poland
121. E.L. Mills, Institute of Oceanography, Dalhousie University, Halifax, (Nova Scotia), Canada

122. J.L. Mohr, Department of Biological Sciences, University of Southern California, University Park, Los Angeles, (Cal. 90007), U.S.A.
123. Th. Monod, Muséum National d'Histoire Naturelle, Pêches Outre-Mer 57, Rue Cuvier, Paris 5e, France
124. P.G. Moore, University Marine Biological Station, Isle of Cumbrae, Millport, Scotland
125. C. Morand-Chevat (✠), Université Cl. Bernard (Lyon I), Biologie Souterraine, 43, Boulevard du 11 novembre 1968, F-69 Villeurbanne, France
126. Ph.D. Mordukhai-Boltovskoi, Institute of Biology of Inland Waters, Academy of Sciences USSR, Kuibyshev, USSR
127. H. Morino, Seto Marine Biological Laboratory, Shirahama, Wakayama-ken, Japan
128. B.F. Morris, Bermuda Biological Station, St. Georges West, Bermuda
129. G.I. Müller, Sectia "Prof L. Borcea", IRCM, Agigea (Dobrogea) Romania
130. A. Myers, Department of Zoology, University College, Cork, Eire
131. K.K. Chandrasekharan Nair, Indian Ocean Biological Centre, P.B. No.13, Pullepady Cross Road, Ernakulam (Cochin-16) India
132. T. Nemoto, Ocean Research Institute, University of Tokyo, 15-1, 1 chome, Minamidai, Nakano, Tokyo, Japan
133. W. Nicolaysen, Marinbiologisk laboratoriet, Grønnehave, Helsingör Danmark
134. A.M. Nocentini (✠), Istituto Italiano de Idrobiologia, 28048 Pallanza, (Novara), Italia

135. W. Noodt, Zoologisches Institut der Universität, Hegewischstr. 3,  
23 Kiel, Deutschland (BRD)
136. R. Oleröd, Naturhistoriska Riksmuseet, Sektionen för Evertebrat-  
zoologi, S-104 05 Stockholm 50, Sverige
137. L. Pardi, Istituto de Zoologia, Universita de Firenze, Firenze  
Italia
138. S. Pereperez, Laboratorio de Zoologia, Facultad de Humanidades  
y Ciencias, Cerrito 73, Montevideo, Uruguay
139. O. Phillips, Marine Science Laboratories, Menai Bridge (Anglesey)  
Wales
140. N. Krishna Pillai, Marine Biological Laboratory, University of  
Kerala, Trivandum, India
141. S. Pinkster, Institute of Animal Taxonomy, Zoologisch Museum,  
Pl. Middenlaan 53, Amsterdam, Holland
142. R.B. Podesta, Department of Zoology, University of Alberta,  
Edmonton (Alberta), Canada
143. J.E. Ponyi, Magyar Tudomanyos Akademiz, Biologiai Kutatointezete,  
Tihany, Hungaria
144. G.S. Preece, Lancing College, Sussex, England
145. P. Rabindranath, Department of Zoology, N.S.S. College,  
Changanacherry-2 (Kerala), India
146. S. Rakusa-Suszczewski, Department of Bioenergetics and Biopro-  
ductivity, Nencki Institute of Experimental Biology,  
Pasteura 3, Warszawa, Poland
147. L.J. Rees (♂), University College North Wales, Marine Science  
Laboratories, Menai Bridge (Anglesey), Wales
148. R.D. Reimer, Texas A. & M. University, College of Agriculture,  
Department of Wildlife Science, College Station,  
(Texas 77843), U.S.A.

149. R. Repelin, Centre ORSTOM, Nouméa, Nouvelle Calédonie
150. A.-L. Roux, Université Cl. Bernard (Lyon I), Département de Biologie Animale et Zoologie, F 69 Villeurbanne France
151. C. Roux (✠), Address as 150
152. S. Ruffo, Museo Civico di Storia Naturale, Lungadige Porto Vittoria 9, Verona, Italia
153. B. Rygg, Tvärminne Zoological Station, University of Helsinki, SF-10850 Tvärminne, Finland
154. H.O. Sanders, Fish-Pesticide Research Laboratory, Bureau of Sport Fisheries and Wildlife, Columbia (Missouri, 65201) U.S.A.
155. J.M. Sanderson, Department of Natural History, The Royal Scottish Museum, Edinburgh 1, Scotland
156. Y. Saudray, Laboratoire d'Ecologie Marine et de la Biologie Marine, 38 Boulevard Michelet, 44 Nantes, France
157. U. Schiecke, Zoologisches Institut der Universität, Schloszgartner 12, 23 Kiel, Deutschland (BRD)
158. E.I. Schornikow, Institute of Sea Biology, Far Eastern Branch of Academy of Sciences USSR, Vladivostok 22, USSR
159. W. Scott Gray, 8622, Kenilworth Avenue, Springfield (Va. 22151), U.S.A.
160. S.G. Segerstråle, Institute of Marine Research, Biological Laboratory, Bulevardi 9A, Helsinki 12, Finland
161. M. Sheader, Dove Marine Laboratory, Cullercoats, North Shields, Northumberland, England

162. Chi Tai Shih, National Museum of Natural Sciences, Canadian Oceanographic Identification Centre, Ottawa, Canada
163. K. Shyamasunderi, Department of Zoology, Andhra University, Waltair, India
164. T.E. Sivaprakasom, Zoological Survey of India, Southern Regional Station, Mylapore (Madras 4), India
165. A. Skalski, Muzeum w Czestochowie, Czestochowa, Poland
166. B. Sket, Institut za Biologija Univerze (Askerceva 12), pp. 141/III, Ljubljana, Yugoslavia
167. I.N. Soldatova, Institute of Oceanology, Academy of Sciences of USSR, 1, Letnaya (Ljublino) Moskva 10.387 USSR
168. G.M. Spooner, The Laboratory, Citadel Hill, Plymouth, England
169. D.H. Steele, Department of Biology, Memorial University of Newfoundland, St. John's (Nfd), Canada
170. V.J. Steele (✠), Address as 169
171. J.H. Stock, Institute of Animal Taxonomy, Zoologisch Museum, Pl. Middenlaan 53, Amsterdam, Holland
172. M. Straškraba, Hydrobiologická Laborator, Vltavska 17, Praha 5, Czechoslovakia
173. S. Sudara, Department of Marine Sciences, Chulalongkorn University, Bangkok, Thailand
174. D.W. Sutcliffe, Fresh Water Biological Association, The Ferry House, Far Sawry, Ambleside, Westmorland, England
175. A. Taniguchi, Plankton Laboratory, Faculty of Fisheries, Hokkaido University, Hakodate, Japan

176. J. Theodorides, Laboratoire de l'Evolution des Etres Organisés  
105 Boulevard Raspail, Paris 6e, France
177. M. Thurston, National Institute of Oceanography, Wormley, Godal-  
ming, Surrey, England
178. E. Tibaldi, Laboratoria di Zoologia dell'Universita, Via Celoria 10  
I-20133 Milano, Italia
179. P. Tongiorgo, Istituto de Biologia Generale, Universita di Pisa,  
Pisa, Italia
180. M.-J. Turquin (♀), Section de Biologie Animale et Zoologie, 16  
Quai St.-Bernard, 69-Lyon, France
181. N. Tzvetkova, Zoological Institute, Academy of Sciences USSR,  
♀ V-164 Leningrad, USSR
182. M. Ueno, Minami-Sakurazuka, 2-3-13, Toyonaka-shi 560, Japan
183. W. Vader, Tromsø Museum, 9000 Tromsø, Norge
184. S.V. Vassilenko (♀), Zoological Institute, Academy of Sciences  
USSR, V-164 Leningrad, USSR
185. A. Vigna-Taglianti, Istituto di Zoologia dell'Universita, Viale  
dell'Universita 32, I-00100 Roma, Italia
186. M. Vincent, Laboratoire de Biologie Animale, Faculté des Sciences,  
Limoges, France
187. M.E. Vinogradov, Institute of Oceanology, Sodovay 1, Ljublino,  
Moskva, USSR
188. A. Vlasblom, Institute of Delta Research, Vierstraat 32,  
Yerseke, Holland
189. E.E. Watkin, Department of Zoology, University College of Wales,  
Penglais, Aberystwyth, Wales

190. L. Watling, University of Delaware, College of Marine Studies,  
Field Station, Lewes (Del. 19958), U.S.A.
191. R. Weigmann (☞), Institut für Meereskunde, Diesternbrooker Weg 22,  
Kiel, Deutschland (BRD)
192. D.J. Wildish, Water Pollution Research Biological Station,  
St. Andrews (N.Br.) Canada
193. W.D. Williams, Department of Zoology, Monash University, P.O.  
Box 92, Clayton, (Victoria 3168), Australia
194. T. Wolff, Zoologisk Museum, Universitetsparken 15, Dk-2100  
København Ø, Danmark
195. N.S. Yalynskya, Lvov State University, Lvov, USSR
196. Kwang Il Yoo, Department of Oceanography, Seoul National Univer-  
sity, Seoul, South Korea

Omissions:

197. J. Feeley, Department of Biology, College of William and Mary,  
Williamsburg (Va.           ), U.S.A.
198. W.B. Sikora, University of Georgia Marine Institute, Sapelo  
I Island (Ga. 31327), U.S.A.

I had hoped to be able to list those workers with a special interest in e.g.: Talitroidea, Niphargus, amphipod physiology, protozoan parasites of amphipods, etc., separately, but this is at the present stage impracticable, as in many cases I do not know the special field of interest of the amphipod workers I have got the addresses of. I have numbered the present list, nevertheless, so that we may be able to use this list in later issues of the Newsletter, without having to repeat the addresses.