January 1976

The main courses of this issue are essays on recent work on Black and Caspian Sea amphipods, written by Iraida Greze and Galina Fjatakova. I am sure these will be of great interest for most of us, as language difficulties usually form a formidable barrier which prevents us from keeping really up-to-date in the Russian-language scientific literature, and we are therefore especially grateful for these English summaries. We also have a report from the Schlitz symposium, and a number of notes in the series on the major amphipod collections, while John Mohr has sent his promised rejoinder on the "Chonos stem tree". The column "News from Colleagues" has this time benefited greatly from the organizing talents of Les Watling, who, together with their subscription money, sent no less than 11 contributions under this heading from colleagues in the eastern USA.

The financial situation has somewhat improved, partly by Watling's effort, partly by personal contact with colleagues in Schlitz, and there is now no immediate crisis. Payment of small cheques has now become a very uneconomic transaction, and I am trying to work out a better method with our local bank. I hope to be able to give the results in A.N. 8, for which the deadline will be 15. May 1976. Finally, I wish you all a good and peaceful 1976.

Wim Vader
Tromsø Museum
N-9000 Tromsø
Norge

THIRD INTERNATIONAL COLLOQUIUM ON GAMMARUS AND NIPHARGUS. SCHLITZ 1975
M. P. D. MEJJERING

From the 22nd to the 26th of September, 1975, the 3rd International Colloquium on Gammarus and Niphargus was held in conjunction with the 1st International Symposium on Groundwater Ecology, the latter initiated and organized by S. Husmann (Schlitz).

Both conferences were held in the knights hall of one of the Schlitz castles, the Vorderburg, where the participants were addressed by the burgomaster of the town. After this, presentations were given on eco-physiological topics, mainly on Gammarus. The second day was dedicated to ecological as well as to physiological lectures both on Gammarus and Niphargus. Taxonomic lectures on both genera followed, partly given in the
morning of the third day. A discussion group was formed to consider a new look at the systematics of gammaridean amphipods of the world with a paper of E.L. Bousfield (Ottawa) as a basis of discussion. The traditional reunion of the group of Verona (1969) gave a platform to discuss systematics of Niphargus. All the presentations of the 3rd Colloquium will be published in a special supplement of CRUSTACEANA.

An excursion to the Pulda on the afternoon of the third day enjoyed fairly good weather. Sampling sites of *Gammarus fossarum* and *Niphargus scheillenbergi* were visited on the slopes of the Wasserkuppe, the highest elevation of the Rhön-hills, from where the Pulda originates. Further downstream *Gammarus pulex* and *Gammarus roeseli* were sampled near the town of Pulda. During this excursion demonstrations were given of sampling methods in groundwater of the Pulda valley, forming an introduction to the program of the 1st International Symposium on Groundwater Ecology, which covered the last two days of the meeting.

Both conferences were attended by 65 participants from 13 countries, and about a dozen interested biologists from the region around Schlitz and Pulda were present as well. A press conference was given, and here the necessity of close cooperation of students working on taxonomic problems with those interested in ecology was pointed out to be of essential importance for progress towards better nature management. The official statements were given publicity all over the Federal Republic of Germany by newspapers, radio and television.

The combination of the Colloquium on Gammarus and Niphargus together with the Symposium on Groundwater Ecology, with Niphargus acting as a link, was felt to be very useful in the present state of the development of both conferences. So there was a strong demand for another combined conference, the 4th International Colloquium on Gammarus and Niphargus and the 2nd International Symposium on Groundwater Ecology. Our colleagues J. Holsinger and A.L. Buikema will make efforts to get funds for the arrangement of a meeting in Blacksburg, Virginia, U.S.A. in 1978. As soon as possible further information on this matter will be given in a circular letter.

(As one of the participants at the Schlitz-Symposium, I should like to add that the conference was very well organized, though always with an informal touch, and this was no doubt the main reason for the congenial atmosphere, which allowed us in a short time to learn much more about amphipods and amphipodologists alike. The compact mediavally small town Schlitz formed an ideal surroundings for a meeting of this kind. W.V.)
At the Institute of Biology of the South Seas a number of studies on the taxonomy and biology of Gammaridea are being carried out. A new subspecies of Nannonyx goesii has recently been described by I.I. Greze.

The feeding and energy budget of Gammarus olivii is being studied by G.I. Abolmasova. The principal parameters of feeding and assimilation at various temperatures were established, and the daily energy balance at the same temperatures calculated. The daily food intake in G. olivii is correlated with temperature and with the weight of the animal, and this correlation is expressed by equations. The energy expenditure for metabolism and egg production in G. olivii was measured and also for these correlations equations were found.

The effects of oil pollution on populations of Gammarus aequicauda and G. olivii, and their survival and growth at different oil concentrations, are being studied by N. Milovidova and I. Kargopolova.

My own investigations now concern size-weight and wet weight dry weight correlations in some species: Gammarus insensibilis, G. subtypicus, G. olivii, G. aequicauda, Gammarrellus carinatus, Pleonexes gammaroides, Dexamene spinosa, Amphithoe vaillanti, Apherusa bispinosa and Ericthonius difformis.

To determine the seasonal dynamics in an amphipod population its life plan and its changing role in the population as a whole, I study the life cycle of Gammarus aequicauda in the Black Sea, and clarified its growth, reproduction and population dynamics.

I also have carried out a comparative experimental study of survival and growth after acclimation to different salinities in Black Sea and Adriatic populations of Gammarus aequicauda and G. insensibilis.

The results of all these investigations are now in the press or published in the following recent papers (in Russian):


As to museum collections of Black Sea amphipods in the USSR, I know a single and not so large one in Leningrad at the Department of Crustaceans of the Zoological Institute, Academy of Sciences, USSR.
A brief bibliography on the Amphipoda of the Black Sea (ordered chronologically)

A. Systematics, zoogeography


CZERNIAVSKY, V. 1868. On four species of Orchestia connected by transitional forms and found in the Black Sea. Ibidem (Part of the foregoing ? W.V.)


Azov Seas 2: 440-494.

B. Biology


(See also A.N. 5-33 for a summary of another recent paper of Mrs. Greze, and A.N. 5-10 for a list of available translations by Richard Shillaker. The present bibliography deals mainly with Russian papers, and I should like to suggest to our Romanian and Bulgarian subscriber that they supplement the list with a bibliography of the work carried out in that part of the Black Sea.)
A BRIEF SURVEY OF MODERN INVESTIGATIONS ON AMPHIPODA
OF THE CASPIAN SEA.

Galina M. PJATAKOVA

1. F.D. MORDUKHAI-BOLTOVSKOI and S.M. LJAKCHEV, 1972. A new amphipod species of the genus Stenogammarus (Gammaridae) in the Volga river basin. Zool. Zh. 51: 21-27. (in Russian). S. dzjubani sp.n., a new amphipod species of the endemic Pontocaspian genus Stenogammarus, is described. The species under investigation is distinct from all the other species of the genus in a powerful armament of the urosome, a peculiar structure of pereopods I and II in which the carpus is longer than the propodus, and also in the presence of pinnate setae on the outer edge of the exopodite of uropod III. Despite the fact that S. dzjubani belongs to the Caspian autochthonous complex, it was found only in the Kuibyshev and Saratov reservoirs on the Volga river, and it has not yet been found in the Caspian Sea.

2. G.M. PJATAKOVA, 1973. Some data on reproduction and fecundity of Caspian Amphipoda. Zool. Zh. 52: 685-688. (in Russian). In the Caspian Sea, the reproduction of amphipods begins in early spring and proceeds until late autumn; in some species mature ovi-fertous females occur the whole year round. Individual fecundity of amphipods suffers significant fluctuations and depends directly on the size of the species and of the specimens within one species (r=0,85). The fecundity of amphipods suffers seasonal variations as well: in summer small specimens predominate with a lesser amount of eggs than during cold seasons.


4. Jan H. STOCK, 1974. The systematics of certain Ponto-Caspian Gammaridae (Cruatacea, Amphipoda). Mitt. Hamburg. Zool. Mus. Inst. 70: 75-95. (in English). A group of Ponto-Caspian species of Gammaridae, the Dikerogammarus-Pontogammarus-complex, is defined, and a key to the genera is provided. The diagnoses have been modified in such a way, that the taxa on generic level form more consistent units than before. For all these units a type-species is indicated, and all described species are listed. Several new genera and subgenera are described, viz. Obesogammarus,
Wolgaammarus, Paraphargoides, Compactogammarus and Euphargoides. Moreover, a new limnic species, Obesogammarus luriarum, from Little Mount Ararat, Asiatic Turkey, is described in detail.


The Caspian Corophiids are divided in three groups according to their distribution: I-species, occurring in the rivers of the Caspian basin and in the Caspian Sea, II-species, occurring in the Caspian Sea, III-species inherent to the Middle and South Caspian. The high values of the Corophiiid biomass near the west and east coasts of the Middle Caspian Sea are chiefly determined by the development of Corophium chelicorne. The quantitative distribution of Corophiids in the Caspian Sea suggests that the food conditions for fishes are by far unequal in different parts of the Sea. An abrupt decline of the biomass of the Corophiids has been recently observed in the shallow waters of the Kura-Caspian region.


The time of Gammaridae reproduction in the reservoir, seasonal variability of their fertility, ratio of sexes, average size of males and females in different seasons of a year are found out. The designed absolute fertility of four species of Gammaridae proved to be close to the empiric values and testifies to a high reproductive ability of the Caspian forms, settled in the reservoir.

THE MAIN LITERATURE ON CASPIAN SEA AMPHIPODA

(ordered chronologically)


(As received, the Russian papers in Pjatakova's list were cited in Cyrillic characters. The transcription and translation have been carried out in Tromsø. For the transcription the international scientific connotation was used, but I changed back the more common author's names to the more familiar English transcription).

REQUESTS FOR INFORMATION etc.

Reprints on planktonic amphipods

I am presently engaged in the study of the vertical distribution of planktonic amphipods in the Hilutungan Channel of Cebu, Philippines, for my thesis. I hope to finish my thesis by April, 1976. In this connection, I would highly appreciate if you can send me reprints which I could use for my thesis. It is very difficult to secure literature on planktonic amphipods here in our country, I would be grateful for whatever reprints you can spare me.

Paciencia C. SIA
c/o Biology Department
University of San Carlos
Cebu City 6401
Philippines

(Miss Sia also hopes to find a specialist who is willing to verify her identifications).

Sex pheromones

I am a research assistant investigating sex pheromones in marine and freshwater gammarids. I would be interested to hear from anyone
working in this field, and particularly from anyone with results concerning the role of short range cuticular pheromones.

Steve SMITH
Marine Biological Station
Port Erin, Isle of Man
U.K.

NEWS FROM COLLEAGUES

The first 11 items under this heading were collected and sent in by Les Watling, together with the subscription money. A good idea, which I hope will be adopted by Drs Taniguchi and Williams, and by those colleagues from western USA, Canada, India, the USSR, and maybe also France and Britain which I hope will soon volunteer as regional collectors and correspondents.

Ken BYNUM: Richard Fox and I have a couple of papers coming out late this year or next year, one a faunistic paper on N.C. estuarine amphipods, intended to help the non-specialist deal with the local fauna, and the other a description of several new species from North Carolina. I am currently studying the life cycle and morphological development of Carella penantis. Preliminary results indicate that there are two distinct forms of the species in North Carolina, a gracile, protected water form and a robust form characteristic of exposed sites with heavy wave action. I am currently looking at their distribution, morphology and relationship to other members of the group of morphologically very similar species to which C. penantis belongs. Also working generally on the life cycle of other local caprellids.

David CULVER: My major interest in amphipods is interspecific competition and community structure, especially in subterranean streams.

Richard S. FOX: Relationships of local Corophium distribution to salinity; Faunistics of Southeastern U.S. marine amphipods.

Tom GLENNON, Jr.: I have just begun working with amphipods, having spent the last two years identifying animals taken with varying sampling techniques in the Gulf of Maine. I work for Normandeau Associates, an environmental consulting and research firm based in New Hampshire.

Dr. John R. HOLSINGER: Copies of my 1967 monographic revision of the subterranean amphipod genus Stygonectes (U.S. National Museum Bulletin 259) are still available and can be obtained free by writing me.
W.S. JOHNSON: I am just beginning to study the population dynamics and energetics of the caprellids of Chesapeake Bay region.

L.D. MCKINNEY: I am presently working on the epibenthal amphipods of the western Gulf of Mexico from Sabine Pass, Texas, to Yucatan, Mexico. Currently I am working up the 1960 Smithsonian-Bredin Expedition to Yucatan. I have discovered numerous new species and several new genera among this material.

Allan D. MICHAEL: In doing some experimental work on the effects of oil on Haustoriids we found that the most abundant species at Black Beach where Sameoto worked was Neohaustorius schmitzi. We have checked a reference collection of the material Sameoto actually worked on and his collections of H. biarticulatus are mixtures of these two species with H. schmitzi predominant. This does not alter the overall conclusions about niche separation but any of the specific data on H. biarticulatus (size, egg nr. etc.) cannot be considered correct.

Herman O. SANDERS: The effects of forest insecticides on growth and reproduction of Gammarus spp.

K. John SCOTT: I have recently completed my thesis on the ecology of the sand-burrowing lysianassid, Psammonyx nobilis. My present work involves studies on effects of low level temperature elevations on fouling and mud-bottom communities of southern New England.


H.-P. BULNHEIM: The following paper is in the press: "Gammarus tigrinus, ein neues Faunenelement der Ostseeferde Schlei" (Schr. naturwiss. Ver. Schlesw.- Holst.)

Bob COOPER: I am plucking up courage to work on some Antarctic Oedicero-tids and have just finished a paper on "Platyschnopus".

Peter JUMARS: My work is of a general ecological nature, but amphipods are usually second in numerical importance only to Polychaeta in the mud communities that most interest me. Also, I am now advising a student who works on beach amphipods associated with surf zone diatoms.

Ahmet KOCATAS: Turkish Research Council has recently selected me for a project related to the collection of marine Amphipoda from Turkish waters.

Yuk Maan LEUNG: I am writing two papers on amphipods: The mystery of Cyamus rhytae (Amphipoda: Cyamidae), a whale-louse of the extinct sea cow and "Life cycle of Cyamus scammoni (Amphipoda, Cyamidae), ectoparasite of the Gray Whale, with a remark on the associated species". I hope they will be completed soon.
Brad MYERS: I have been working on microcrustacea from the southern California area for about three years with my main emphasis on ostracoda, Cumacea, and Amphipoda. I am currently involved in a taxonomic standardization program through which we are attempting to standardize the level of taxonomic expertise at different universities, museums, agencies and private consulting firms throughout the southern California area. This program will make data more accurately comparable as well as allow local systematists to maintain contact and keep informed of work being done.

Adèle WILLIAMS: My research, as a research student under supervision of Colin Little, concerns ionic regulation in *Gammarus pulex* and *G. chevreuxi*.

**MAJOR AMPHIPOD COLLECTIONS**

The empty space on the upper half of p. 12 in A.N. 6 was meant to contain the contribution in this series of Ed Bousfield, but by some unexplained lapsus I must somehow have forgotten to put it in. Since then I have succeeded in collecting a further 5 contributions, with at least two more (Amsterdam and Hamburg) to follow in A.N. 8.

Forschungsinstitut Senckenberg, Frankfurt am Main


Michael TÜRKAY
Crustaceensektion

British Museum (Natural History), London

take many years to document the entire Crustacea collection, and it is our intention that small type-catalogues will be published as the work progresses.

**Loans:** The following regulations govern the loan of specimens: Before a loan can be despatched the Section must have received a signed Agreement form from the addressee. This form is only required once. Type and figured specimens are given special approval, and are loaned for a period of 6 months. This can only be extended by special permission. The initial loan period for other material is usually 12 months.

In all cases requests for loans, or extensions of existing loans, should be sent to me and I shall be happy to respond to your applications. It does make life easier for me if requests for extensions of loans are sent before the loan is overdue for return, thus avoiding a string of reminders as is often the case.

Dr. Roger J. LINCOLN
Head of Crustacea Section

Zoologisk Museum, Oslo

As many amphipod specialists already know the Zoological Museum, University of Oslo, houses a major part of Professor G.O. Sars' amphipod collection. Georg Ossian Sars (1837-1927) worked at the University of Oslo from 1870 to 1918, from 1874 as professor of zoology. He will always be regarded as one of the most outstanding Norwegian zoologists and has published papers on nearly every animal group. In later years, however, Sars devoted his work almost entirely to Crustacea, and continued his studies until a few days before he died, nearly 90 years old. For many years he travelled along the Norwegian coast and through the inland areas collecting material, and he was one of the leaders of the Norwegian North-Atlantic Expedition 1874-76. Sars also received material from all over the world and he described a large number of new species; among them many amphipods.

Besides Sars' collection, amphipods described by A. Boeck are also deposited in the Oslo Museum. Unfortunately, neither Sars nor Boeck labelled their new species as type material and, since no amphipod specialist has ever worked in the Oslo Museum for a longer period, many of the type species are still not registered as type.

Many amphipod specialists have in later years borrowed material from the Oslo Museum for study, and this loan policy will also be followed in the future. In this way we hope to further the systematic research on amphipods.
I would like to reaffirm that the Canadian National Collection of amphipod crustaceans is available for use and for loan to any qualified worker in the group on request. Our curatorial policy includes the loan of primary type specimens at the discretion of the curator concerned. The Canadian National Collection is especially rich in material from Canadian Atlantic, Pacific, Arctic and fresh-water habitats, and world-wide in scope in several groups, especially Gammaroidea, Haustorioidea, Talitroidea, and Caprellidea. We welcome the interest of colleagues in depositing amphipod material, especially primary type material, in the Canadian National Collection.

Ed BOUSFIELD

Like most of the invertebrates kept in our section of the Swedish Museum of Natural History the amphipods are divided into a "Scandinavian" and a "foreign (exotic)" collection. The former collection contains about 12,000 samples, the main part of which is identified by Hugo Oldevig. The amphipod fauna around Spitzbergen and Greenland is here well represented thanks to various Swedish expeditions to the arctic waters during the period 1870-1910.

With reference to our "foreign" collection—about 4,000 samples—especially the rich amphipod material from the Swedish Antarctic Expedition 1901-03 may be noted. In 1931 A. Schellenberg published his paper on gammarids and caprellids from this expedition (Further Zool. Res. Swed. Ant. Exp. 1901-03, vol. 2, no. 6), whereas up to now only a part of the hyperiids—about 230 samples—has been identified. So by this note we are now waiting for a specialist, who is willing to work up our collection of antarctic amphipods.
As to our loan policy I will inform that we generally also send our type specimens on loan.

Roy OLERUD
Section of Invertebrate Zoology

Museo Civico di Storia Naturale, Verona

The amphipod collections of the Museo Civico di Storia Naturale (Lungadige Porto Vittoria 9, I-37100 Verona, Italia) started from some Mediterranean and Red Sea collections brought to the Museum by Sandro Ruffo in 1946. The same author has gradually enriched the collection by his own collecting activity, that of this collaborators in the project of the "Handbook of Mediterranean Amphipoda", by exchanges and by collections sent in for identification. Two acquisitions have been especially important:
1. The collection of Antonio Della Valle on which this well known specialist has based his famous 1893-monograph of the 'Gammarini del Golfo di Napoli', containing most of his types.
2. The Niphargus-collection of Umberto d'Ancona.

At the moment the collections of the Verona museum count about 750 species (mostly of Italian Freshwater biotopes, the Mediterranean and the Red Sea). There about 150 types or syntypes (of Della Valle, Ruffo, and of the present group of co-workers on the Handbook project (Bellantoni, G.Karaman, Krapp-Schickel, Myers, Schiecke and Vader). The alcohol material is nearly completely identified and indexed. The collection contains also about 1000 microscopic slides, also indexed. All this material is available on loan to specialists.

The collections of the Verona museum are of particular importance for the amphipod faunas of the Mediterranean and Red Seas and for Italian freshwater habitats (both superficial and subterranean).

Sandro RUFFO
I am grateful for the opportunity the amphipod newsletter provides to go over some of the underlying differences in outlook between Anatol Jankowski and us southern Californians on the collar ciliates of amphipods and other crustaceans. We consider the crustacean host group (and particularly the amphipods) and their biology to be only moderately well known. The collar ciliate protozoans (chonotrichs), although better known than they were 30 years ago, are still known only from the work of a few people and from a few places mostly in the northern hemisphere; that is, they are much less well known than their hosts. Almost all the work on them has been done on preserved rather than on living materials (and this does make a real difference, particularly with the chilodochoninae series), Fenchel's studies being perhaps the important exception. Conclusions on the present limited evidence must be very provisional.

As to those conclusions (and probably most of them are of little interest to amphipoders), we believe for reasons we shall pursue elsewhere that features of ciliate morphology, of crustacean host morphology and physiology, and of distribution of hosts and chonotrichs do not support Jankowski's dividing the chonotrichs primarily into those without (exogemmans) and those with (endogemmans) a bud-pouch; rather we hold that Wallengren's (1895) separation into spirochonines (relatively simple-collared forms now known from amphipods, isopods, nebalids, Balanomphora; and in a solitary case from a marine alga of Tristan da Cunha) and chilodochonines (bog- and flexible-lipped forms of crabs, anomurans, macrurans, shrimps and mysids) is the fundamental division. If we are right in this, the probable age of the chonotrich group is greater than Anatol suggests.

In these particular reflections we have come to disagree with our old friend and frequent benefactor, Jerry Barnard, about the probable evolutionary position of gammarines. These have a nearly uninterupted distribution in a holarctic "heartland" ("land" being here the inshore and inland water continuum). Using the reasoning of vertebrate paleontologists, we think that old groups may have survivors at the limit of spread or in various patches within the full range-through-time, but an old group (at least this seems to be true for higher vertebrates since the late Cenozoic) does not survive throughout its range. If the gammarines are basic are they an exceedingly young group? If amphithoids and other gammaridean families are even younger, now have they been able to spread widely to places where gammarines have not been found? Is the thinking unduly influenced by the northern base of most of the workers.
and is the southern sampling still adequate?

Our thinking here has been prodded by impressions that the collar ciliates on amphipod larvae and some other non-gammarine amphipods have more generalized features than do those on gammarides (in which again we disagree with Anatol). Even if we should be right about the chonotrichs, one must not make conclusions about the amphipod relationships on that basis, but it is true that from time to time parasite distributions give rise to useful questioning about composition of most taxa.

LIST OF SUBSCRIBERS (SUPPLEMENT '5)

Changes of address

74 Not G, but S. Husmann

226 Peter Jumars. New address: Dept of Oceanography, WE-10, University of Washington, Seattle, WA. 98195 U.S.A.

91 Donald E. Keith. New address: Dept of Biological Sciences, Tarleton State University, Stephenville, Texas 76402 U.S.A.

26 Marion J van Maren. Temporary address (until summer 1976):

(c/o Université
Cl. Bernard (Lyon I)
Biologie Animale et Zoologie, P 69621
Villeurbanne, France

125 Christiane Morand. New address: E.N.S.A.I.A., 30-bis rue Ste Catherine, P-54000 Nancy, France

127 Hiroshi Morino. New address: Dept of Biology, Ibaraki University Mito, 310 Japan

New subscribers

232 Sergei Carăuşu, Facultatea Biologie-Geografia, Laborator de Hidrobiologie, Universitatea Iaşi, Iaşi, Romania.
In spite of the customary good help of Claude De Broyer, Iraida Greze and Jan Stock, this bibliography is probably more incomplete than usual, as I have been away from Tromsø a good deal this autumn. Please let me know if I have overlooked your 1975-papers.

Unfortunately, for various reasons (postal strike, translator's illness) reviews of the monographic papers of Tzvetkova (by Jan Stock) and Vasilenko (by Diana Laubitz) have not reached me in time for this issue. In the case of Dr. Hamoud's thesis, Roux has been so kind to provide a summary "by returning post" almost.

Peter Slattery has suggested to print the bibliography in two columns per page, so that one can cut out and past them on cards directly. This has hitherto been impossible for economic reasons, but I'll keep it in mind.


ANEER, G., 1975. Composition of food of the Baltic herring (Clupea harengus v. membras L.), Fourhorn Sculpin (Myoxocephalus quadricornis and Bel- Pout (Zoarces vivipar àus L.) from deep soft bottom trawling in the Askö-Landsort area during two consecutive years. Havforsk. Inst. Skr., Helsinki 239: 146-154 (Pontoporeia spp. are a very important food-source for all three species).


GRIFFITHS, C.I., 1975. The Amphipoda of Southern Africa. The Gammaridea and Caprellidea of the Cape Province West of Cape Agulhas. Annls S. Afr. Mus. 67: 91-181. (New taxa: Panoploea stegosa, Maera enarginata, M. komma, M. thrixa, Melita mucronata, Listriella saldanha, Socarnes septimus, Perioculodes pallidus, Heterophoxus cephalodens, H. opus, and Podocerus pyurae. Temnophlias is made the type of the monotypic Family Temnophilliidae (recte Temnophliantidae), distinguished from the Phliantidae by the presence of pleurae on the pereon, reduced maxillipeds palps and uniramous first uropods. Tryphosa africana is synonymized with Hippomedon longimanus, and Hippomedon rotundipleura Ledoyer with Tryphosa normalis, which also is a Hippomedon. Procyphocaris primata and Uristes induratus are synonymized as Procyphocaris induratus. Microlysius indica is a junior synonym of M. xenoceras but the M. xenoceras of Barnard (1940) was in fact Orchemone plicata, Allorchestes inquirendus is a junior synonym of Hyale grandicornis and Talorchestia inaequalipes of Orchestia gammarellus. Finally, Caprella falsa is synonymized with C. penantii. Illustrations are also provided of Gammaropsis longicarpus, C. scissimanus, Cheirocratus inermis, Jerbarnia mecochira Croker, Maera bruzelli (with -ii, because named after Bruzelius), Ischyrocerus ctenophorus, Lepidececreum clypeatum, Seba saundersi and Temnophlias capensis.)


HAMMOUD, W., 1975. Contribution a l'étude éthologique et biochimique de la reconnaissance sexuelle chez les Gammarus du groupe pulex. These, Univ. Lyon, 106 pp. (See also p. 31)

HARDING, P.T., 1975. Observations on the habitat of Halophiloscia couchi (Kinahan 1858) (Isopoda, Oniscoidea) in southwestern Britain. Crustaceana 25: 108-109. (This paper includes data on the behaviour of Orchestia mediterranea, which was almost invariably found together with the abovementioned isopod).


JAŻDZEWSKI, K., 1975. (Acta Univ. Łódz. 7: 1-185. (In Polish, with English summary on pp. 180-185. An important study, involving the 13 species of Gammarus, and two of Chaetogammarus, which occur in Poland)


JAŻDZEWSKI, K. & A. SKALSKI, 1975. (Deuxième Colloque international sur les genres Gammarus et Niphargus) Przegląd Zool. 19: 140-144 (For those of us who read Polish, this is an extensive and richly illustrated report of the Lyon meeting in 1973.)


KARAMAN, G.S., 1975. The family Ampeliscidae of the Adriatic Sea. 64. Contribution to the knowledge of the Amphipoda. Acta Adriatica 17: 1-67 (9 Ampelisca species, i.a. A. dalmatina Karaman, 1975, description and figures of which are repeated in this paper, and Haploops tubicola.)


KUDRJASHOV, V.A., 1975. (Biogeographical structure of the fauna of sand hoppers (Crustacea, Amphipoda) from the intertidal zone of the high-boreal regions of the Far-East.) Pp. 25-26 in Golikov (ed), 1975 (In Russian)

KUDRJASHOV, Y. A. & N.L. TZVEIKOVA 1975. (New and rare species of Amphipoda (Gammaridae) from the coastal waters of the South Sakhalin). Zool. Zh. 54: 1306-1313 (In Russian, English summary. Deals with Gammaropsis (Podoceropsis) barnardi n. sp., Melita somovae Bulycheva, Synchelidium gurjanovae n. sp. (= Pontocrates arenarius s. Gurjanova 1951), C. bulytschevae (= P. arenarius s. Bulycheva 1957) and Pleusurus seccorbus asiaticus n. ssp. There is apparently also a discussion of the genera Pontocrates and Synchelidium)


LEE, R.P., 1975. Lipids of Arctic zooplankton. Comp. Biochem. Physiol. 51 B: 263-267. (Includes data on 6 spp of amphipods. Gammarus wilkitzkii, Apherusa glacialis, Hyperia galba and Parathemisto abyssorum had triglycerides (12-56% of total lipid) as main reserve fuel, but Cyclocaris quilleimi and Pseudalibroctus nansenii wax esters (12-54% of total lipid).


MATEUS, E. de Oliveira & O. APONSO, 1974. Etude d'une collection d'Amphipoda des Açores avec la description d'une nouvelle espèce. Publições Inst. Zool. "Augusto Nobre" 126: 9-39. (The new species is Amphitrochus (Pleonexes) podboi. The authors remove Pleonexes ferox to Amphitrochus (Amphitrochus) and give a synoptic table to A (R) gammarides, A (P) lessoniae, A (E) poipu, A (P) bicuspis, A (B) aptos and A (P) podboi


MOORB, J.W., 1975. The role of algae in the diet of Asellus aquaticus L and Gammarus pulex L. J. Anim. Ecol. 44:719-730 (3-6% of the gut contents of G. pulex in this study consisted of algae)


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GREZE, I.I., A.G. KRASUTSKAYA & Z.A. PONOMAREVA, 1975. (Distribution of Amphipoda in the Dnestr estuary and its possible changes with respect to the regulation of the Dnestr river). Zool. Zhurn. 54: 1723-1725. (In Russian, English summary. 23 Gammarida and 7 Corophium species were recorded, i.e. Gmelina kusnetzowi, new to the area. In the northern and middle reaches, where the oscillations in salinity are small, Caspian elements predominate).

HAMMOUD, W., 1975. Diss. Univ. Lyon, see p.24. Dr. Roux has kindly sent me the following summary of this thesis. "La recherche de substances sexuellement attractives a été effectuée dans l'urine, l'hémolymphhe, les sécrétions tégumentaires, les broyat et les rejecta de Gammarus pulex et G. fossarum. Les tests biologiques montrent que l'urine des femelles renferme une substance sexuellement attractive pour le mâle. Il est difficile de préciser la nature exacte de l'attraction exercée par l'hémolymphhe, qui est peut-être de nature alimentaire. L'ecdysterone peut jouer le rôle de phéromone sexuelle.

Divers tests laissent penser que la substance attractive émise par la femelle pourrait être de nature lipidique. Une fraction lipidique particulière n'existe que chez les femelles attractives. Le poids des lipides totaux extraits des femelles attractives est supérieur à celui des lipides totaux des femelles non attractive".

(Similar summaries of other, e.g. British, unpublished theses will be much appreciated. W.V.)

HURLEY, D.E., 1975. A provisional key and checklist to the New Zealand species of freshwater amphipods. NZ01 Records 2: 93-102. (Sixteen species in 4 families. Of special interest are freshwater species of Orchestia (I), which will be treated in more detail elsewhere).


REHELM, R., 197?. On the ecology of the family Phronimidae (Crustacea-Amphipoda) in the western Pacific. New Zealand natn Comm. for Unesco, 524 pp. (Not seen. Can someone give me the complete reference to this paper?).


SHEADER, M., 1975. Factors influencing change in the phenotype of the planktonic amphipod Farathemisto naudichaudi (Guerin). ______ J. mar. biol. Ass. U.K. 55: 387-391. (The length of the intermoult period is the key factor determining the degree of development of the bispinosa-compressa condition at each moult. Intermoult length is influenced by i.a. temperature and level of nutrition).


News from colleagues:

Roy OLÉROD: The following paper is in the press. "The mouthparts in some North Atlantic species of the genus Orchomene Boeck (Crustacea, Amphipoda)", Zoologica Scripta 4. In this paper the structure of the mandibular molar of 5 Orchomene species, Orchomenella minuta and Orchomenopsis obtusa is studied with the aid of the scanning electron microscope.

Les WATLING: I am currently working on peracarids collected by the Virginia Institute of Marine Science on the continental shelf and upper slope along the east coast of the United States between 38 and 40° N. These samples are being collected at 28 stations (6 replicates per station). Sixteen of the stations are being sampled quarterly, and the remainder twice a year.

New Subscriber:


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BRADFORD, J.M., 1975. New parasitic Chonistomatidae (Copepoda), mainly from Antarctic and Subantarctic Ostracoda. Mem. N.Z. oceanogr. Inst. 67: 1-36 (Sphaeronella grayi n.sp. from Liouvillea sp. from off S. America, besides 14 new Sphaeronella spp plus Sphaeronelloides vargulae n.gen.n.sp.all from Ostracoda. On p.9 a list of described Sphaeronella species is given, arranged according to host and certain morphological characters. From the bibliography I note the following paper: W.S. GRAY, in press. Family Pleustidae as represented in Antarctic and subantarctic
waters, with a proposed revision. Antarctic Research Series.)


MAREN, M.J. van, 1975. The biology of Chaetoammarus marinus (Leach) and Blemnogammarus obtusatus (Dahl) with some notes on other intertidal gammarid species (Crustacea, Amphipoda). Bijdr. Dierk. 45: 205-224.


News from colleagues

Marion van Maren: "At the present time I am working on the role of gammaridean Amphipoda as intermediate hosts for worm-parasites of aquatic Vertebrates. Especially I am interested in the specificity of the parasites in relation to their amphipod hosts. The gammarids as well as the fishes that I am working on come from the River Rhône and its tributaries. Until now I have found many specimens of Gammarus fossarum and Gammarus pulex containing Acanthocephala-larvae, and less frequently, Cestoda-larvae. Furthermore I examine the stomach contents of benthos-eating fishes and look for parasites in the intestine. In future, when Acanthocephala-eggs are available, I would like to try to infect different gammarid species to see if these worms show a narrow or wide specificity towards their intermediate hosts. Moreover I want to look at modifications in the behaviour of the parasitized Amphipod hosts, compared to not infected specimens. Any suggestions or advices about this topic are very welcome".