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# AMPHIPOD NEWSLETTER 45

*Dear Amphipodologists,*

We hope this newsletter finds of you safe and healthy. 2021 has been another year of postponed meetings, electronic greetings and cancelled collection-expeditions. Many of us have spent the year in isolation and home-offices, and we miss our colleagues possibly even more than we did last year. Not least has this been a difficult time for our students who have been faced with less hands-on practical lab- and field-time, and with fewer job-opportunities when they finish.

We are therefore very happy to see that the facebook group is active, and it seems this has become a social place for the amphipodologists to meet. An impressive list of 377 publications (as of end of September) shows that we have not given up doing science despite the sad year.

Our beloved ICA is still in the planning, see more about that on page 56. Exciting news to all that there is in the planning also an amphipod- and bioinformatics workshop in connection to the International Crustacean Congress to be held in Wellington, New Zealand in may 2023. Block out the time in your calendars, friends! Make sure to check out the last page for "the old photo". We hope this will bring happy memories to some, and pleasure to all.

This November, Jim Lowry, fellow amphipodologist, mentor and friend passed. Alan Myers has written an In Memoriam for this newsletter, a longer and more comprehensive memoriam for Jim will be presented at a later stage. 2021 also took Ludmila Budnikova and Svetlana Kozlova from us. They will be greatly missed.

Lastly - both editors are thinking about how Amphipod Newsletter should develop. Wim writes about the bibliography on page 3, on page 56 we present a short questionnaire - and hope those interested in ANs continuation will take the time to answer.

*Wim and Anne Helene*

*Statistics from  
this Newsletter*

15 new genera

83 new species

2 new subspecies

## Jim Lowry In Memoriam

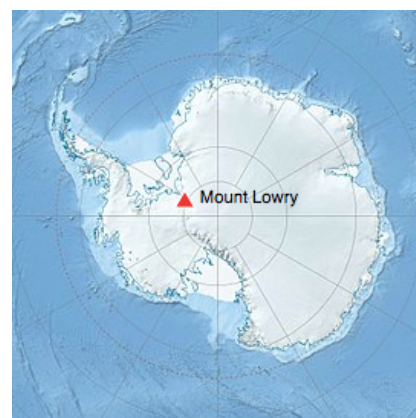
2 October 1942 – 4 November 2021

Our friend and colleague Jim Lowry passed away in Lecce, Italy on November 4<sup>th</sup>. He was born James Kenneth Lowry in Virginia, USA on October 2<sup>nd</sup> 1942. After qualifying at University in Virginia, he spent several years at Palmer Station in Antarctica. There, in addition to his biological studies, he had the distinction of having a mountain named after him – the 1,020 metres high Mt. Lowry in the Patuxent Range. He then worked for a while in New Zealand, before taking up his post at the Australian Museum in Sydney, where he was a senior research scientist for more than 40 years.

He spent almost all his working life on the study of amphipods, publishing his first paper (on *Microprotopus*) in 1970. His most recent contributions are currently in press and further papers are still to appear posthumously in the coming years.

This short memoriam is to inform all his colleagues, of which there are very many, of his passing, and a longer biography will be written at a later date that will do full justice to his long and distinguished career. Jim was always ready to help young amphipodologists and pass on his knowledge. At the Australian Museum, a series of young scientists were trained by him and have gone on to careers in carcinology in various parts of the world from England to New Zealand, as well of course as in Australia. He did more to describe the amphipod fauna of Australia than anyone had before him, especially on his beloved group the lysianassids, and more recently on the Talitroidea. He worked tirelessly to obtain funding for amphipod studies. In particular, he sourced resources to put together a team to study the amphipods of the Great Barrier Reef that resulted in a large monograph published in 2009. He will be missed by his many colleagues, all of whom have benefitted from his advice and friendship, and by his loving wife Lucia and son Rafael.

Alan Myers, November 5, 2021



## AN bibliography present and future scope of use

It is now more than 50 years since I took the initiative to start a newsletter for amphipod workers. Originally the newsletters were mimeographed and sent out in the mail, and I had an intricate system of regional collectors that assisted in getting in the money needed for the operation. Things became very much easier when AN could be produced on line and downloaded from the internet, and we even had some money left that we used on travel grants to amphipod conferences. I have now the invaluable help of coeditors, and my main contribution nowadays is to compile and annotate the bibliography. Few colleagues these days send pdf's of their papers to AN. I am very grateful to drs Ariyama, Labay, Mekhanikova, Morino, and Sidorov, who still do so.

What function does this AN bibliography still fulfil? People, wherever they live in the world, nowadays have much better access to the literature. I would very much appreciate to hear from you how useful this bibliography still is for you, and whether its present scope is the right one. Is the list of new taxa still useful?

I presume that taxonomic, ecological, zoogeographical and parasitological still should be included, as well as ones on symbioses and fossil species. But what about the very many papers where amphipods, most often *Gammarus* or *Hyaella*, are used in all kinds of toxicological studies, often quite far removed from ecology, such as the toxicity of shampoos or rare metals? Or the papers that study the use of amphipods as fish food in aquaculture? Or proteomics? I have the impression that such papers are not of too much interest for most readers of AN, while the scientists for who these papers ARE relevant, won't read AN. I have also the sneaking suspicion that I probably miss more papers in these categories than in those in my own main fields of taxonomy, symbioses or ecology.

Also, I am 84 now and the coming amphipod conference will have to discuss whether to continue AN, and if yes, who will take over when I will no longer be able to continue.

Please let me know your opinion on these matters ([wjm.vader@gmail.com](mailto:wjm.vader@gmail.com))

*Wim Vader*

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(finished Sept 31 2021)

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(Deals with *Floresorchestia mkomani* Bichang'a & Hou n. sp. (Mkomani, Mombasa) and *Gazia gazi*.)

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Clayton, T. P. 2021. *Microfibre effects on the freshwater amphipod Gammarus pulex*. ---- MSc Thesis, Univ. of Leeds. (Not seen)

Conlan, K. E. 2021. New genera for species of *Jassa* Leach (Crustacea: Amphipoda) and their relationship to a revised Ischyrocerini. ---- *Zootaxa* 4921, 1-72. <https://doi.org/10.11646/zootaxa.4921.1.1> (This paper deals with *Plumulojassa* n. gen., type and only species *Jassa ocia*, *Ventojassa frequens*, with *Jassa barnardi* as junior synonym, *Hemijassa goniomera*, transferred from *Jassa*, and *Pleojassa* n. gen., with the species *P. moorei* n. sp. (Signy Island, S. Orkneys), *P. lowryi* n. sp. (The Snares, NZ), *P. orientalis* n. sp. (Macquarie Island, Australia), and *P. wandeli* (transferred from *Jassa*); all species are fully described and illustrated. In a short review of the Ischyrocerini, the genus *Neoischyrocerus* comprises *Coxischyrocerus* and *Tropischyrocerus*, as well as a number of tropical or southern hemisphere species formerly classified in *Ischyrocerus*. A key to all ischyrocerid genera is provided.)

Conlan, K. E., A. Desiderato & J. Beermann 2021. *Jassa* (Crustacea: Amphipoda): a new morphological and molecular assessment of the genus. ---- *Zootaxa* 4939, 1-191. <https://doi.org/10.11646/zootaxa.4939.1.1> (All you ever wanted to know about *Jassa*! The species *J. cadetta* and *J. trinacriae* are synonymized with *J. slatteryi*, and the recent *J. mendozai* with *J. valida*; *J. laurieae* n. sp. was collected in Portugal and *J. kimi* n. sp. in Yeosu-Si, S. Korea. All species are fully illustrated, with much information about morphology and biology. A key to world *Jassa* spp, covering both sexes is on pp 162-163.)

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Copilas-Ciocianu, D. & F. M. Pop 2020. An account of bacterial-induced luminescence in the Ponto-Caspian amphipod *Pontogammarus maeoticus* (Sowinsky, 1894), with an overview of amphipod luminescence. ---- *North-western Journal of Zoology* 16, 238-240.

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Cosio, C., D. Degli-Esposti, C. Almunia, V. Gaillet, H. Sartelet, J. Armengaud, A. Chaumot, O. Geffard & A. Geffard 2021. Subcellular distribution of dietary methyl-mercury in *Gammarus fossarum* and its impact on the amphipod proteome. ---- *Environmental Science & Technology* 55, 10514-10523. <https://doi.org/10.1021/acs.est.1c02385>

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Csapo, H., P. Krzywozniak, M. Grabowski, R. Wattier, K. Bacela-Spychalska, T. Mamos, M. Jelic & T. Rewicz 2020. Successful post-glacial colonization of Europe by single lineage of freshwater amphipod from its Pannonian Plio-Pleistocene diversification hotspot. ---- *Scientific Reports* 10: 18695. <https://doi.org/10.1038/s41598-020-75568-7> (*Gammarus roeselii*)

Cui, J., Z. Yu, M. Mi, L. He, Z. Sha, P. Yao, J. Fang & W. Sun 2020. Occurrence of halogenated organic pollutants in hadal trenches of the Western Pacific Ocean. ---- *Environmental Science & Technology* 54, 15821-15828. <https://doi.org/10.1021/acs.est.0c04995> (Found in amphipods)

Cuthbert, R. N., S. G. Kotronaki, J. T. A. Dick & E. Briski 2020. Salinity tolerance and geographical origin predict alien amphipod invasions. ---- *Biology Letters* 16: 20200354. <https://dx.doi.org/10.1098/rsbl.2020.0354>

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Dalal, A., J. Gallogly, R. N. Cuthbert, C. Laverty, J. W. E. Dickey & J. T. A. Dick. 2021. Ecological impacts of an invasive predator are mediated by the reproductive cycle---- *Biological Invasions* 23, 669-675. <https://doi.org/10.1007/s10530-020-02414-2>. (The invader here is *Gammarus pulex*!)

Dauvin, J.-C., A. Fersi, J.-P. Pezy, A. Bakalem & L. Neifar 2021. Macrobenthic communities in the tidal channels around the Gulf of Gabès, Tunisia. ---- *Marine Pollution Bulletin* 162: 111846. <https://doi.org/10.1016/j.marpolbul.2020.111846>

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Davidson, A. D., A. J. Tucker, W. L. Chadderton & C. Weibert 2021. Development of a surveillance species list to inform aquatic invasive species management on the Laurentian Great Lakes. ---- *Management of Biological Invasions* 12, 272-293. <https://doi.org/10.3391/mbi.2021.12.2.05>

De Paula, D. R., K. V. S. Cunha, I. C. P. Garcia, S. de P. Barros-Alves & G. B. Jacobucci 2021. Population biology of sympatric species of *Caprella* (Amphipoda: Caprellidae) in a tropical algal

bed. ---- *Scientia Marina* 85, 39-47. <https://doi.org/10.3989/scimar.05065.004> (*C. danilevskii*, *C. equilibra* and *C. scaura* in Brazil)

Degli, E. I., O. Defeo & F. Scapini 2021. Arthropodofauna richness and abundance across beach-dune systems with contrasting morphodynamics. ---- *Regional Studies in Marine Science* 44: 101722. <https://doi.org/10.1016/j.rsma.2021.101722> (A study from Uruguay)

Dellali, M., A. Dougoui, A. H. Harrath, L. Mansour, S. Alwasel, H. Beyrem, T. Gyedu-Ababio, M. Rohal-Lupher & F. Boufahja 2021. Acute toxicity and biomarker responses in *Gammarus locusta* amphipods exposed to copper, cadmium, and the organochlorine insecticide dieldrin. ---- *Environmental Science and Pollution Research* 28, 36523-36534. <https://doi.org/10.1007/s11356-021-13158-4>

Demirçali, A., F. Karci & F. Sari 2021. Synthesis and absorption properties of five new heterocyclic disazo dyes containing pyrazole and pyrazolone and their acute toxicities on the freshwater amphipod *Gammarus roeselii*. ---- *Coloration Technology* 137, 280-291. <https://doi.org/10.1111/cote.12530>

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Di Franco, D., K. Linse, H. J. Griffiths & A. Brandt 2021. Drivers of abundance and spatial distribution in Southern Ocean peracarid Crustacea. ---- *Ecological Indicators* 128: 107832. <https://doi.org/10.1016/j.ecolind.2021.107832>

Dickey, J. W. E., R. N. Cuthbert, G. T. Steffen, J. T. A. Dick & E. Briski 2021. Sea freshening may drive the ecological impacts of emerging and existing invasive non-native species. ---- *Diversity and Distributions* 27, 144-156. <https://doi.org/10.1111/ddi.13178> (*Gammarus salinus* and *G. tigrinus*)

Didorenko, S. I., A.D. Botvinkin & V. V. Takhteev 2020. (A new, original trophic relationship in the Lake Baikal ecosystem: the pelagic amphipod, *Macrohectopus branickii* (Crustacea; Amphipoda) and *Myotis petax* bats (Mammalia, Chiroptera).) ---- *Zoologicheskyy Zhurnal* 99, 1140-1147. (In Russian. The bats feed on the amphipods when these come to the surface at night)

Diehl, O. J., P. K. Assano, T. R. G. da Costa, R. Oliveira, H. Marques-Suza & G. de A. Umbuzeiro 2021. Antenna regeneration as an ecotoxicological endpoint in a marine amphipod: a proof of concept using dimethyl sulfide and diflubenzuron. ---- *Ecotoxicology* 30: 751-755. <https://doi.org/10.1007/s10646-021-02395-5> (*Parhyale hawaiiensis*)

Dominguez-Nava, A., R. Gasca, L. Carrillo. L. Vasquez-Yeomans & E. Suarez-Morales 2021. Hyperiid amphipod vertical distribution and community structure in the upper 100 m of the northwestern Caribbean Sea. ---- *Bulletin of Marine Science* 97, 401-426. <https://doi.org/10.5343/bms.2020.0030> (Not seen)

Dong, D. T., A. F. Miranda, M. Carve, H. Shen, C. Trestrail, K. V. Dinh & D. Nugegoda 2020. Population- and sex-specific sensitivity of the marine amphipod *Allorchestes compressa* to metal exposure. ---- *Ecotoxicology and Environmental Safety* 206: 111130. <https://doi.org/10.1016/j.ecoenv.2020.111130>

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Drinan T. J., N. P. J. Grainger, J. S. Harding, K. J. Collier, B. J. Smith, R. G. Death, T. Maklan & J. R. Rolfe 2020. Analysis of the conservation status of New Zealand freshwater invertebrates: temporal changes, knowledge gaps, impediments, and management implications. ---- *New Zealand Journal of Zoology* 48, 81-96. <https://doi.org/10.1080/03014223.2020.1778044>.

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Dunlop, K., P. E. Renaud, J. Berge, D. O. B. Jones, R. P. Harbour, A. H. S. Tandberg & A. K. Sweetman 2021. Benthic scavenger community composition and carrion removal in Arctic and Subarctic fjords. ---- *Polar Biology* 44, 31-43. <https://doi.org/10-1007/s00300-020-02773-5> (A study from 2 N. Norway and 6 Svalbard fjords)

Ecols, B. S. 2021. Toxicity evaluations of Louisiana nearshore marsh sediments following the Deepwater Horizon oil spill. ---- *Marine Pollution Bulletin* 168: 112380. <https://doi.org/10.1016/j.marpolbul.2021.112380> (*Leptocheirus plumulosus*)

Edlund, M. B., D. J. Jude & T. F. Nalepa 2021. Diets of the benthic amphipod *Diporeia* in southern Lake Michigan before and after the dreissenid invasion. ---- *Journal of Great Lakes Research* 47, 447-462. <https://doi.org/10.1016/j.jglr.2021.01.018>

Egly, R. M., E. M. O'Shaughnessey & R. P. Keller 2021. Updated occurrence data and species distribution modeling of the invasive amphipod *Apocorophium lacustre* in North America. ---- *Freshwater Science* 40, 162-174. <https://doi.org/10.1086/713071>

Esmacili-Rineh S. 2020. Parsimony Analysis of Endemicity (PAE) in Iranian freshwater basins based on subterranean amphipod genus *Niphargus* (Crustacea, Malacostraca). ---- *Iranian Journal of Animal Biosystematics* 16(2), 85-93. <https://doi.org/10.22067/ijab.v16i2.84256>

Esmacili-Rineh, S. & S. A. Mirghaffari 2021. *Niphargus hegmatanensis* sp. nov. (Crustacea, Amphipoda, Niphargidae), a new species from subterranean freshwaters of western Iran. ---- *Iranian Journal of Fisheries Science* 20 (4), 1049-1063. <https://doi.org/10.22092/ijfs.2021.124427> (*N. hegmatanensis* n. sp. from Boghato spring in Hamedan Province.)

Espinosa-Leal, L., A. Bode & R. Escribano 2020. Zonal and depth patterns in the trophic and community structure of hyperiid amphipods in the Southeast Pacific. ---- *Deep-Sea Research I* 165:103402. <https://doi.org/10.1016/j.dsr.2020.103402>

Espinosa-Leal, L., R. Escribano, R. Riquelme-Bugueño & A. Corredor-Acosta 2021. Distribution and biodiversity patterns of hyperiid amphipods across the coastal-offshore gradient of the subtropical Southeast Pacific. ---- *Marine Biodiversity* 51:13. <https://doi.org/10-1007/s12526-020-01152-x>

Espinosa-Leal, L., J. Medellín-Mora, A. Corredor-Acosta & R. Escribano 2021. The community structure of hyperiid amphipods associated with two seamount regions in the South-east Pacific. ---- *Journal of the Marine Biological Association UK*, in press. <https://doi.org/10.1017/s0025315420001344> (56 Species recorded, listed in Table 1)

Esquete, P. & C. Aldea 2021. Benthic peracarids (Crustacea) from an unexplored area of Patagonian channels and fjords. ---- *Biodiversity Data Journal* 8: e58013 <https://doi.org/10.3897/BDJ.8.e58013> (Not seen)

Esther, A. P., J. L. Tilak & S. A. Samraj 2020. Amphipod (Malacostraca: Crustacea), an important trophic level in the lake energetics of Pulicat Lake, Tamilnadu, India. ---- *Journal of Global Biosciences* 9, 7928-7936. [www.mutagens.co.in/jgb/vol.09/09/090904.pdf](http://www.mutagens.co.in/jgb/vol.09/09/090904.pdf)

Everitt, S., S. MacPherson, M. Brinkmann, S. Wiseman & G. Pyle 2020. Effects of weathered sediment bound dilbit on freshwater amphipods. ---- *Aquatic Toxicology* 228: 105630. <https://doi.org/10.1016/j.aquatox.2020.108630> (Dilbit is diluted bitumen. The amphipods are *Hyaella azteca*.)

Fanton, H., E. Franquet, M. Logez & N. Kaldonski 2021. Effects of temperature and a manipulative parasite on the swimming behaviour of *Gammarus pulex* in flowing water. ---- *Hydrobiologia*, on line. <https://doi.org/10-1007/s10750-021-04655-1>. (The parasite is *Pomphorhynchus laevis*.)

Farahani, S. A. 2020. *Coevolution in host-parasite systems. Behavioural strategies of native and invasive hosts*. ---- Ph.D Thesis, Univ. of Groningen. (Not seen. *Polymorphus minutus* vs gammarids)

Farahani, S., P. J. Palsbøll, I. Pen & J. Komdeur 2021. Effects of parasites upon non-host predator avoidance behaviour in native and invasive gammarids. ---- *Parasitology* 148, 354-360. <https://doi.org/10.1017/S0031182020002140> (The parasite is *Polymorphus minutus*, the amphipods *Gammarus pulex*, *G. fossarum* and *Echinogammarus berilloni*.)

Fernandes, F. de O., M. S. Barbosa-Silva, J. F. de J. Resende, G. O. Longo & E. Marinho-Soriano 2021. Food source or refuge: What is behind amphipod choices for seaweeds? ---- *Marine Ecology* 2021: e12652. <https://doi.org/10.1111/maec.12652> (Studies on *Ampithoe marcuzzii*)

Finkelstein, K., E. F. Wirth, K. W. Chung, B. S. Shaddrix, E. S. Pisarski & C. Rios 2021. Acute polychlorinated biphenyl benthic invertebrate toxicity testing to support the 2017 Chronic Dose-Response Sediment Injury Model. ---- *Environmental Toxicology and Chemistry* 40, 1188-1193. <https://doi.org/10.1102/etc.4977>

Fitzgerald, D. B., D. R. Smith, D. C. Culver, D. Feller, D. W. Fong, J. Hajenga, M. L. Niemiller, D. C. Nolfi, W. D. Orndorff, B. Douglas, K. O. Maloney & J. A. Young 2021. Using expert knowledge to support Endangered Species Act decision-making for data-deficient species. ---- *Conservation Biology* 35, 1627-1638. <https://doi.org/10.1111/cobi.13694>

Fleeger, J. W., D. S. Johnson, S. A. Zengel, I. A. Mendelssohn, D. R. Deis & S. A. Graham 2021. A macroinfaunal ecosystem engineer may facilitate recovery of benthic invertebrates and accompanying ecosystem services after an oil spill. ---- *Estuaries and Coasts*. <https://doi.org/10.1007/s12237-021-00978-3> (*Apocorophium louisianum* is the ecosystem engineer)

Friesen, O., R. Poulin & C. Lagrue 2021. Temperature and multiple parasites combine to alter host community structure. ---- *Oikos* 130, 1500-1511. <https://doi.org/10.1111/oik.07813> (*Paracalliope fluviatilis* and *Paracorophium excavatum*)

Fu, T., O. Knittenfelder, O. Geffard, Y. Clément. E. Testet, N. Elie, D. Touboul, K. Abbaci, A. Shavchenko, J. Lemoine, A. Chaumot, A. Salvador, D. Degli-Esposti & S. Ayciriex 2021. Shotgun lipidomics and mass spectrometry imaging unveil diversity and dynamics in *Gammarus fossarum* lipid composition. ---- *iScience* 24: 102115. <https://doi.org/10.1016/j.isci.2021.102115>.

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Gabr, M. K., A. F. Zeina & A. M. Hellal 2020. Influence of algal architecture and shore exposure on population dynamics of marine amphipods at Ras Mohamed Protectorate, Egypt. ---- *Egyptian Journal of Aquatic Biology & Fisheries* 24 (6), 59-72. <https://doi.org/10.21608/EJABF.2020.109900>

Gagnon, K., C. Gustafsson, T. Salo, F. Rossi, S. Gunell, J. P. Richardson, P. L. Reynolds, J. E. Duffy & C. Boström 2021. Role of food web interactions in promoting resilience to nutrient enrichment in a brackish water eelgrass (*Zostera marina*) ecosystem. ---- *Limnology and Oceanography* 66, 2810-2826. <https://doi.org/10.1102/lno.11792> (Northern Baltic Sea)

Gajdosova, M., A. Beermann, J. Bojkova, V. Polaskova, J. Schenkova, M. Zhai, M. Horsak, F. Leese & A. Petrussek 2021. Community metabarcoding uncovers vast diversity and a lack of barcode references for aquatic invertebrates in Carpathian spring fens. ---- *ARPHA Conference Abstracts 4*: e65057. <https://doi.org/10.3897/aca.4.e65057>

Galan, C. 2021. (Discovery of the stygobian amphipod *Niphargus (Supraniphargus) longicaudatus* (Costa) in a cavity with underground lakes in the south of Urbasa mountain range (Navarra). ---- *Publications of the Department of Speleology S.C. Aranzadi*. (In Spanish)

Gibson, R., B. T. Hutchins, J. K. Krejca, P. H. Diaz & P. S. Sprouse 2021. *Stygobromus bakeri*, a new species of groundwater amphipod (Amphipoda, Crangonyctidae) associated with the Trinity and Edwards aquifers of central Texas, USA. ---- *Subterranean Biology* 38, 19-45. <https://doi.org/10.3897/subtbiol.38.61787>. (*S. bakeri* n. sp. from central Texas limestone karst springs. With a key to Texas *Stygobromus*. A corrigenda to Table 1 of this paper is found in *Subterranean Biology* 38: 113-115. <https://10.3897/subtbiol.38.68597> )

Gilby, B. L., C. J. Henderson, A. D. Olds, J. A. Ballantyne, E. L. Bingham, B. B. Elliott, T. R. Jones, O. Kimber, J. D. Mosman & T. A. Schlacher 2021. Potentially negative ecological consequences of animal redistribution on beaches during COVID-19 lockdown. ---- *Biological Conservation* 253: 108926. <https://doi.org/10.1016/j.biocon.2020.108926> (A study from E. Australia. Torresian Crows, finding less food in the towns, forage much more on the beaches)

Gillmore, M.L., L.A. Golding, J.L. Stauber, M.S. Adams, S.L. Simpson, R.E.W. Smith & D.F. Jolley 2021. The diffuse gradients in thin films technique predicts sediment nickel toxicity to the amphipod *Melita plumulosa*. ---- *Environmental Toxicology and Chemistry* 40: 1266-1278. <http://dx.doi.org/10.1002/etc.4971>



Glynn, P., B. Coffman, K. Detloff, J. Dominguez, P. Gillette, N. Martinez, N. Jones & B. Riegl 2021. Exotic brittle star interactions with native octocoral epizoites: an endemic benthic ctenophore in peril? ---- *Marine Biology* 168, 142. <https://doi.org/10.1007/s00227-021-03927-7> (A complicated story from Florida! *Caprella penantis* is a predator on the creeping ctenophore *Coeloplana waltoni*, but less dangerous than the invading brittle stars.)

Götz, A., H. K. Imhof, J. Geist & S. Beggel 2021. Moving towards standardized toxicity testing procedures with particulates by dietary exposure of gammarids. ---- *Environmental Toxicology and Chemistry* 40, 1463-1478. <https://doi.org/10.1002/etc.4990> (*Gammarus roeselii*).

Greco, S., S. Gaetano, G. Furlanis, F. Capanni, P. Edomi, P. G. Giuliani & M. Gerdol. 2021. RNA-sequencing indicates high hemocyanin expression as a key strategy for cold adaptation in the Antarctic amphipod *Eusirus cf giganteus* clade g3. ---- *Biocell* 45, 1611-1619. <https://doi.org/10.32604/biocell.2021.016121>

Guareschi, S., A. Laini, J. England, T. Johns, M. Winter & P. J. Wood 2021. Invasive species influence macroinvertebrate biomonitoring tools and functional diversity in British rivers. ---- *Journal of Applied Ecology* 58, 135-147. <https://doi.org/10.1111/1365-2664.13795>

Gudmundsdottir, R. 2020. *Microbes and the groundwater amphipod Crangonyx islandicus in Iceland*. ---- Ph.D.Thesis, Univ. of Iceland.

Gudmundsdottir, R., S. H. Björnsdottir, V. D. Marteinson & S. Palsson 2020. Comparison of the gut microbiota in the groundwater amphipod *Crangonyx islandicus* Svavarsson & Kristjansson, 2006 (Amphipoda: Crangonyctidae) to biofilms in its spring-source habitat. ---- *Journal of Crustacean Biology* 40, 657-667. <https://doi.org/10.1093/jcbiol/ruaa065>

Guerra-Garcia, J. M. & S. T. Ahyong 2020. A new genus and two new species of Caprellidae (Crustacea: Amphipoda) from mesophotic and deep-sea waters of Australia. ---- *Records of the Australian Museum* 72 (2), 45-62. <https://doi.org/10.3853/j.2201-4349.72.2020.1764> (Deals with *Pseudoliropus keablei* n. gen. n. sp. (Area C south, Arafura Sea, NT) and *Pseudoprotella australiensis* n. sp. (SE of Broken Bay, NSW).)

Guerra-Garcia, J. M. & S. T. Ahyong 2021. *Paraliropus* nom. nov., a replacement name for *Pseudoliropus* Guerra-Garcia & Ahyong, 2020, preoccupied by *Pseudoliropus* Laubitz, 1970 (Crustacea: Amphipoda: Caprellidae). ---- *Records of the Australian Museum* 73, 51. <https://doi.org/10.3853/j.2201-4349.73.2021.1735>

Hadjab, R., K. Ayati & C. Piscart 2020. A new species of freshwater amphipods *Echinogammarus* (Amphipoda, Gammaridae) from Algeria. ---- *Taxonomy* 2021-1, 36-47. <https://doi.org/10.3390/taxonomy1010005> (*E. monodi* n. sp. from Hamamet town near Tebessa, in spring)

Hall Jr, L. W., W. D. Killen, R. D. Anderson & R. W. Alden III 2021. Long term bioassessment multiple stressors study in a residential California stream. ---- *Journal of Environmental Science and Health A* 56, 346-360. <https://doi.org/10.1080/10934529.2021.1879585> (*Hyaella*)

Hauke, R. 2020. *Sponge-associated amphipod communities as bioindicators for pollution*. ---- M. Sc. Thesis, Victoria University of Wellington. (Not seen)

Hauke, R., R. A. Peart & K. G. Ryan 2020. An analysis of the genus *Leucothoe* Leach, 1814 (Amphipoda: Leucothoidae) in New Zealand, with the description of two new species symbiotic with ascidians and sponges. ---- *Journal of Crustacean Biology* 41, 1-14. <https://doi.org/10.1093/jcbiol/ruaa093>. (Deals with *L. agripeta* n. sp. (Wellington, NZ), *L. campbelli*, *L. traillii*, and *L. tumultus* n. sp. (Chatham Rise, NZ). With a key to NZ *Leucothoe*.)

Heo, J.-H. & Y.-H. Kim 2021. A new species of the genus *Opisa* Boeck, 1876 (Crustacea, Amphipoda, Opisidae) and a new record for *Opisa takafuminakanoi* from the East Sea, South Korea. ---- *ZooKeys* 1015, 99-113. <https://10.3897/zookeys.1015.60095> (*Opisa parvimana* sp. nov. from Namae Port, South Korea)

Herawati, V. E., Z. Nailulmua, N. Rismaningsih, J. Hutabarat, Pinandoyo, T. Elfitasari, P. H. Riyadi & O. K. Radjasa 2020. Growth performance and nutritional quality enrichment of *Phronima pacifica* by *Chlorella vulgaris* and *Chaetoceros calcitrans* as natural feed. ---- *Biodiversitas* 21, 4253-4259. <https://doi.org/10.13057/biodiv/d210942>

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Hernandez, E. G., M. P. Berg, A. R. Van Oosten, C. Smit & J. F. Salles 2021. Linking bacterial communities associated with the environment and the ecosystem engineer *Orchestia gammarellus* at contrasting salt marsh elevations. ---- *Microbial Ecology* 82, 537-538. <https://doi.org/10.1007/s00248-020-01656-w>.

Hiki, K., H. Ariyama & N. Nakajima 2020. The complete mitochondrial genome of the estuarine amphipod *Grandidierella osakaensis* (Crustacea: Amphipoda). ---- *Mitochondrial DNA part B Resources* 5, 3305-3306. <https://doi.org/10.1080/23802359.2020.1778559>.

Hiltunen, M., U. Strandberg, M. T. Brett, A. K. Winans, D. A. Beauchamp, M. Kotila & J. E. Keister 2021. Taxonomic, temporal, and spatial variations in zooplankton fatty acid composition in Puget Sound, WA, USA. ---- *Estuaries and Coasts*, on line. <https://doi.org/10.1007/s12237-021-00973-8>. (Amphipods contained the highest amount of essential fatty acids, esp. *Cyphocaris challengerii*.)

Hodgson, A. N., F. Smith, P. Smith & L. Claassens 2020. Macrofauna associated with intertidal mussel beds in the Knysna estuarine embayment, SouthAfrica. ---- *African Zoology* 56, 44-57. <https://doi.org/10.1080/15627020.2020.1848457>

Huang, A., N. W. v.d.Brink, L. Buijse, I. Roessink & P. J. v. d. Brink. 2021. The toxicity and toxicokinetics of imidacloprid and a bioactive metabolite to two aquatic arthropod species. ---- *Aquatic Toxicology* 235, 105837. <https://doi.org/10.1016/j.aquatox.2021.105837> (i.a. *Gammarus pulex*)

Huff Hartz, K. E., D. P. Weston, N. Johanif, H. C. Poynton, R. E. Connon & M. J. Lydy 2021. Pyrethroid bioaccumulation in field-collected insecticide-resistant *Hyalella azteca*. ---- *Ecotoxicology* 30, 514-523. <https://doi.org/10.1007/s10646-021-02361-1>

Hughes, L. E. 2021. *Notes on Australian marsh-hoppers (Protorcheștiidae: Amphipoda: Crustacea)*. ---- Chapter 4 in T. Kawai & D. C. Rogers (eds). Recent advances in freshwater crustacean biodiversity and conservation. Taylor & Francis (Deals with *Microrchestia watsonae*, *M. metcalfeae* and *M. poka*. The genus *Cochinorchestia* is considered a junior synonym of *Microrchestia*)

Hughes, L. E. & S. Lindsay 2021. *New and known species of Bellorchestia Serejo & Lowry, 2008 from Australia (Talitridae: Amphipoda: Crustacea)* ---- Chapter 5 in T. Kawai & D. C. Rogers (eds). Recent advances in freshwater crustacean biodiversity and conservation. Taylor & Francis. (Not seen. Contains i.a. four new species from Tasmania: *B. lutruwita*, *B. needwonnee*, *B. palawakani* & *B. reliquia*.)

Hultgren, K. M., L. Ossentjuk, K. Hendricks & A. Serafin 2021. Crustacean diversity in the Puget Sound: reconciling species, phylogenetic, and functional diversity. ---- *Marine Biodiversity* 51:37. <https://doi.org/10.1007/s12526-021-01172-1>.

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Hupalo, K., F. Stoch, I. Karaouzas, A. Wysocka, T. Rewicz, T. Mamos & M. Grabowski 2021. ---- *Freshwater Malacostraca of the Mediterranean Islands—diversity, origin and conservation*

*perspectives*. ---- Chapter 6 in T. Kawai & D. C. Rogers (eds). Recent advances in freshwater crustacean biodiversity and conservation. Taylor & Francis. (Not seen)

Hutchins, B. T., J. R. Gibson, P. H. Diaz & B. E. Schwartz 2021. Stygobiont diversity in the San Marcos Artesian Well and Edwards Aquifer Groundwater System. ---- *Diversity* 13: 234. <https://doi.org/10.3390/d13060234>

Iwasa-Arai, T., H. G. Neto, R. B. Ferioli & M. R. Werneck 2020. Notes on amphipods associated with loggerhead marine turtle *Caretta caretta* (Linnaeus, 1758) in south-eastern Brazil. ---- *Nauplius* 28: e2020034. <https://10.1590/2358-2936e2020034> (*Caprella andreae* and *Podocerus chelonophilus* from a stranded *Caretta*.)

Iwasa-Arai, T., J. L. Segadilha, T. G. A. Rodrigues & S. G. L. Siqueira 2021. First record of the beach-hopper *Speziorchestia tucurauna* (Crustacea: Amphipoda) in the oceanic island of Fernando de Noronha, Northeastern Brazil. ---- *Thalassas, International Journal of Marine Sciences* 37, 163-168. <https://doi.org/10.1007/s41208-020-00257-1>.

Iwasa-Arai, T., S. G. L. Siqueira, J. L. Degadilha & F. P. P. Leite 2021. The unique Amphipoda and Tanaidacea (Crustacea: Peracarida) associated with the brown algae *Dictyota* sp from the oceanic Trindade Island, Southwestern Atlantic, with biogeographic and phylogenetic insights. ---- *Frontiers in Marine Science* 8: 651236. <https://doi.org/10.3389/fmars.2021.641236> (Deals with *Ampithoe marcuzii*, *A. suapensis*, *A. thaix* (Siqueira & Iwasa-Arai n. sp., *Cymadusa trinidadensis*, *Hyale niger*, *Protohyale macrodactyla*, *Elasmopus gabrieli* Siqueira & Iwasa-Arai n. sp., *E. viracochai*, *Eusiroides lucai* Siqueira & Iwasa-Arai n. sp., and some tanaids, all from *Dictyota* on Trindade Island.)

Jaegers, J., C. Joaquim-Justo & E. Gismondi 2021. Short-chain chlorinated paraffin effects on the expression of key genes of *Gammarus pulex* exposed at two temperatures. ---- *10<sup>th</sup> Young Environmental Scientists Meeting*. <https://hdl.handle.net/2268/257650>

Jakob, L., K. P. Vereshchagina, A. Tillmann, L. Rivarola-Duarte, D. V. Axenov-Gribanov, D. S. Bedulina, A. N. Gurkov, P. Drozdova, M. A. Timofeyev, P. F. Stadler, T. Luckenbach, H.-O. Pörtner, F. J. Sartoris & M. Lucassen 2021. Thermal reaction norms of key metabolic enzymes reflect physiological and behavioral adaptations of closely related amphipod species. ---- *Scientific Reports* 11: 4562. <https://doi.org/10.1038/s42598-021-83748-2>. (*Eulimnogammarus verrucosus*, *E. cyaneus* and *Gammarus lacustris*).

Jarzemowski, E. A., C. Chény, Y. Fang & B. Wang 2020. First Mesozoic amphipod crustacean from the Lower Cretaceous of SE England. ---- *Cretaceous Research* 112: 104429. <https://doi.org/10.1016/j.cretres.2020.104429>. (Description of *Gammaroidorum vonki* n. gen., n. sp. from the lower Weald Clay Formation in Surrey.)

Jayachandran, P. R., M. Jima, J. Philomina & S. Bijoy Nandan 2020. Assessment of benthic macroinvertebrate response to anthropogenic and natural disturbances in the Kodungalur-Azhikode estuary, southwest coast of India. ---- *Environmental Monitoring and Assessment* 192: 626. <https://doi.org/10.1007/s10661-020-08582-x>

Jażdżewska, A. M., A. Brandt, P. Martínez Arbizu & A. Vink 2021. Exploring the diversity of the deep sea - four new species of the amphipod genus *Oedicerina* described using morphological and molecular methods. ---- *Zoological Journal of the Linnean Society*, zlab032. <https://doi.org/10.1093/zoolinnea/zlab032> (Deals with *O. henrici* n. sp. (12° 08'N, 117°19'W, 4111-4122m), *O. teresae* n. sp. (11°49'N, 116°58'W, 4107-4101m), *O. lesci* n. sp. (46°06'N, 152°14'E, 4769-4798m) and *O. claudei* n. sp. (46°05'N, 146°00'E, 3307m), all solely authored by Anna Jażdżewska. A key to all *Oedicerina*, and a table comparing all species, are provided.)

Jażdżewska, A. M., T. Rewicz, T. Mamos, R. Wattier, K. Bacela-Spychalska & M. Grabowski 2020. Cryptic diversity and mtDNA phylogeography of the invasive demon shrimp, *Dikerogammarus haemobaphes* (Eichald, 1841), in Europe. ---- *NeoBiota* 57, 53-86. <https://doi.org/10.3897/neobiota.57.46699> (There may be 2 cryptic species within *D. haemobaphes*)

Jimenez-Prada, P., I. Hachero-Cruzado & J. M. Guerra-Garcia 2021. Aquaculture waste as food for amphipods: the case of *Gammarus insensibilis* in marsh ponds from southern Spain. ---- *Aquaculture International* 29, 139-153. <https://doi.org/10.1007/s10499-020-00615-z>.

Johanif, N., K. E. Huff Hartz, A. E. Figueroa, D. P. Weston, D. Lee, M. J. Lydy, R. E. Connon & H. C. Poynton 2021. Bioaccumulation potential of chlorpyrifos in resistant *Hyaella azteca*. Implications for evolutionary toxicology. ---- *Environmental Pollution* 2021: 117900. <https://doi.org/10.1016/j.envpol.2021.117900>

Johansen P.-O. & W. Vader 2020. *Nicippe isaki*, a new species of Pardaliscidae (Crustacea: Amphipoda) from Svalbard. ---- *Marine Biology Research* 16, 521-531. <https://doi.org/10.1080/17451000.2020.1828593> (*N. isaki* n. sp. from Isfjorden, Svalbard. With a key to and a synoptic comparison of all *Nicippe* species.)

Joseph, P., S. B. Nandan, S. Sreelekshmi, P. R. Jayachandran, R. Varghese, C. M. Preethy, C. V. Asha & K. J. Adarsh 2021. Benthic biocoenosis: influence of edaphic factors in the tropical mangroves of Cochin, Southern India. ---- *Tropical Ecology* 62, 463-478. <https://doi.org/10.1007/s42965-021-00162-5>.

Jung, T. W., J. G. Min, M.-S. Kim & S. M. Yoon 2020. Five new subterranean amphipods of the genus *Pseudocrangonyx* from Korea (Crustacea, Amphipoda, Pseudocrangonyctidae). ---- *ZooKeys* 971, 1-50. <https://doi.org/10.3897/zookeys.970.55035>. (Deals with *Pseudocrangonyx concavus* n. sp. (Samcheok-si, Gangwon-do), *P. gracilipes* n. sp. ( Danyang-gun,

Chungcheongbuk-do), *P. crassus* n. sp. (Yeongwol-gun, Gangwon-do), *P. minutus* n. sp. (Sinan-gun, Jeollanam-do), and *P. villosus* n. sp. (Danyang-gun, Chungcheongbuk-do). With a key to Korean *Pseudocrangonyx* species.)

Karnaukhov, D. Y., E. M. Dolinskaya, S. A. Biritskaya, M. A. Teplykh, Y. K. Ermolaeva, V. A. Pushnica, I. V. Kuznetsova, A. I. Okholina, L. B. Bukhaeva, O. O. Rusanovskaya & E. A. Silow 2021. New data regarding ecology of freshwater pelagic amphipod *Macrohectopus branickii* (Dybowsky, 1874) (Amphipoda: Macrohectopodidae) and other crustaceans of plankton from the southern part of Lake Baikal (Russia, Southern Siberia). ---- *Acta Biologica Sibirica* 7, 39-48. <https://doi.org/10.3897/abs.7.e65636>

Kim, J.-T., Y.-J. Choi, M. Barghi, J.-H. Kim, J.-W. Jung, K. Kim, J.-H. Kang, G. Lammel & Y.-S. Chang 2021. Occurrence, distribution and bioaccumulation of new and legacy persistent organic pollutants in an ecosystem on King George Island, maritime Antarctica. ---- *Journal of Hazardous Materials* 405: 124141. <https://doi.org/10.1016/j.jhazmat.2020.124141>

Knysh, K. M., S. C. Courtenay, C. M. Grove & M. R. v.d.Heuvel 2021. The differential effects of salinity level on chlorpyrifos and imidaclopril toxicity to an estuarine amphipod. ---- *Bulletin of Environmental Contamination and Toxicology* 106, 753-758. <https://doi.org/10.1007/s00128-021-03157-z> (*Gammarus lawrencianus*)

Kodama, M. & T. Kawamura 2021. Review of the subfamily Cleonardopsinae Lowry, 2006 (Crustacea: Amphipoda: Amathillopsidae) with description of a new species from Japan. ---- *Journal of the Marine Biological Association UK* 101, 359-369. <https://doi.org/10.1017/s0025315421000357>. (Describes *Carinocleonardopsis seisui* n. gen., n. sp. (Sea of Kumano, Japan) and furnishes a review of all data on Cleonardopsinae.)

Koenig, N., C. Almunia, A. Bonnal-Conduzorgues, J. Armengaud, A. Chaumot, O. Geffard & D. Degli Esposti 2021. Co-expression network analysis identifies novel molecular pathways associated with cadmium and pyriproxyfen testicular toxicity in *Gammarus fossarum*. ---- *Aquatic Toxicology* 235, 105816. <https://doi.org/10.1016/j.aquatox.2021.105816>

Kohlbach, D., K. Schmidt, H. Hop, A. Wold, A. Keck Al-Habahbeh, S. T. Belt, M. Woll, M. Graeve, L. Smik, A. Atkinson & P. Assmy 2021. Winter carnivory and diapause counteract the reliance on ice algae by Barents Sea zooplankton. ---- *Frontiers in Marine Science* 8: 640050. <https://doi.org/10.1016/j.aquatox.2021.105816>.

Konschak, M., J. P. Zubrod, P. Baudy, P. Fink, K. G. J. Kenngott, D. Englert, N. Röder, C. Ogbeide, R. Schultz & M. Bundschuh 2021. Chronic effects of the strobilurin fungicide azoxystrobin in the leaf shredder *Gammarus fossarum* (Crustacea; Amphipoda) via two effect pathways. ---- *Ecotoxicology and Environmental Safety* 209: 111848. <https://doi.org/10.1016/j.ecoenv.2020.111848>

Konschak, M., J. P. Zubrod, P. Baudy, P. Fink, S. Pietz, T. S. Duque, A. N. Bakanov, R. A. Schulz & M. Bundschuh 2021. Mixture effects of a fungicide and an antibiotic: Assessment and prediction using a decomposer-detritivore system. ---- *Aquatic Toxicology* 232: 105762. <https://doi.org/10.1016/j.aquatox.2021.105762>. (*Gammarus fossarum*)

Kontchou, J. A., M. Nachev & B. Sures 2021. Ecotoxicological effects of traffic-related sediment pollution in *Lumbriculus variegatus* and *Gammarus* sp. ---- *Environmental Pollution* 268: 115884. <https://doi.org/10.1016/j.envpol.2020.115884>

Krieger, J., M. K. Hörnig, M. Kenning, B. S. Hansson & S. Harzsch 2021. More than one way to smell ashore---Evolution of the olfactory pathway in terrestrial malacostracan crustaceans. ---- *Arthropod Structure & Development* 60: 101022. <https://doi.org/10.1016/j.asd.2020.101022>.

Krodkiewska, M., T. Rewicz, K. Cebulska, A. Koczorowska & A. Konopacka 2020. ---- Distribution pattern of the brackish *Apocorophium lacustre* (Vanhoffen, 1911) (Amphipoda: Corophiidae) and the structure of the amphipod assemblages in the upper Oder River catchment. ---- *International Review of Hydrobiology* 106, 149-163. <https://doi.org/10.1002/iroh.202002062>

Kuehr, S., N. Diehle, R. Kaegi & C. Schlechtriem 2021. Ingestion of bivalve droppings by benthic invertebrates may lead to the transfer of nanomaterials in the aquatic food chain. ---- *Environmental Sciences Europe* 33: 35. <https://doi.org/10.1186/s12302-021-00473-3> (*Hyaella azteca*)

Kuehr, S., R. Kaegi, D. Maletzki & C. Schlechtriem 2021. Testing the bioaccumulation potential of manufactured nanomaterials in the freshwater amphipod *Hyaella azteca*. ---- *Chemosphere* 263: 127961. <https://doi.org/10.1016/j.chemosphere.2020.127961>

Kurashov, E. A., M. S. Trifonova & M. A. Barnashova 2020. Expansion dynamics of *Micruropus possolskii* Sowinsky, 1915 (Amphipoda, Crustacea) in Lake Ladoga. ---- *Russian Journal of Biological Invasions* 11, 326-331. <https://10.1134/S2075111720040050>

Labay, V. S. 2021. Additional data on morphology and distribution of *Melitoides valida* (Shoemaker, 1955) (Amphipoda, Melitidae). ---- *Marine Biological Journal* 6, 58-66. <https://doi.org/10.21072/mbj.2021.06.1.05> (Redescribed and illustrated)

Labay, V. S. 2021. *Malacostraca (Arthropoda: Crustacea) of fresh and brackish water of Sakhalin Island: The interaction of faunas of different origin*. ---- Chapter 3 in T. Kawai & D. C. Rogers (eds). Recent advances in freshwater crustacean biodiversity and conservation. Taylor & Francis. (Not seen)

Labay, V.S. Review of amphipods of the family Pleustidae Buchholz, 1874 (Crustacea: Amphipoda) from the coastal waters of Sakhalin Island (Far East Russia). I. Subfamily Neopleustinae Bousfield & Hendrycks, 1994. ---- *Zootaxa* 4974: 267-306. <https://doi.org/10.11646/zootaxa.4974.2.3> (*Hendrycksopleustes* gen. nov with *Hendrycksopleustes neimanii* sp. nov. described, *Neopleustes euacanthus* (Sars, 1877) is restored, *Neopleustes boecki pacifica* ssp. nov. and *Neopleustes pulchellus asiaticus* ssp. nov. described. Keys to world genera of Neopleustinae, as well as to world species of *Neopleustes* and *Shoemakeroides* are presented)

Lanham, B. S., A. G. B. Poore & P. E. Gribben 2021. Fine-scale responses of mobile invertebrates and mesopredatory fish to habitat configuration. ---- *Marine Environmental Research* 168, 105319. <https://doi.org/10.1016/j.marenvres.2021.105319>

Ledesma, M., E. Gorokhova, H. Holmstrand, A. Garbaras & A. M. L. Karlson 2020. Nitrogen isotope composition of amino acids reveals trophic partitioning in two sympatric amphipods. ---- *Ecology and Evolution* 10, 10773-10784. <https://doi.org/10.1002/ece3.6734> (*Monoporeia affinis* and *Pontoporeia femorata*)

Ledet, J., H. Campbell, M. Byrne & A. G. B. Poore 2021. Differential tolerance of species alters the seasonal response of marine epifauna to extreme warming. ---- *Science of the Total Environment* 696: 149215. <https://doi.org/10.1016/j.scitotenv.2021.149215>. (A study from SE Australia)

Lee, C.-W. & G.-S. Min 2021. Three new species of subterranean amphipods (Pseudocrangonyctidae: *Pseudocrangonyx*) from limestone caves in South Korea. ---- *PeerJ* 9:e10786. <https://doi.org/10.7717/peerj.10786> (The new species are *Pseudocrangonyx deureunensis*, *P. kwangcheonseonensis* and *P. hwanseonensis*.)

Lee, C.-W., K. Tomikawa & G.-S. Min 2020. A new cave amphipod, *Pseudocrangonyx wonkimi* sp. nov. (Crustacea, Amphipoda, Pseudocrangonyctidae) from the Korean peninsula. ---- *ZooKeys* 960, 1-15. <https://doi.org/10.3897/zookeys.960.53564>. (*P. wonkimi* n. sp. from Hampyeong-gun, Jeollanam-do)

Lee, Y. J. & W. G. Park 2021. Population dynamics of *Stenothoe valida* Dana, 1852 (Amphipoda, Stenothoidae) at Cheongsapo beach of Busan, Republic of Korea. ---- *Crustaceana* 94, 413-429. <https://doi.org/10.1163/15685403-bja10105>.

Li, J., J. Zhou, S. Chen, Y. Peng, K. Zhang, W. Huang, X. Liang, B. Liu & C. Zhang 2021. Characterization of the complete mitogenome of *Gammarus lacustris* (G. O. Sars, 1863) (Amphipoda: Gammaridae) and its phylogenetic position within Amphipoda. ---- *Mitochondrial DNA part B* 6 (9), 2501-2502. <https://doi.org/1080/23802359.2021.1958083>



- Lin, C., H.-J. T. Hoving, T. W. Cronin & K. J. Osborn 2021. Strange eyes, stranger brains: exceptional diversity of optic lobe organization in midwater crustaceans. ---- *Proceedings of the Royal Society B* 288: 2021216. <https://doi.org/10.1098/rspb.2021.0216>. (*Cystisoma magna*, *Lanceola sayana*, *Hyperia galba* and *Phronima sedentaria*.)
- Lipinskaya, T., A. Makaranka, V. Razlutskiy & V. Semenchenko 2021. First records of the alien amphipod *Dikerogammarus haemobaphes* (Eichwald, 1841) in the Neman River basin (Belarus). ---- *BioInvasion Records* 10, 319-325. <https://doi.org/10.3391/bir.2021.10.2.10>
- Lipinskaya, T. P. & A. I. Makarenko 2020. (Experimental assessment of the predatory pressure effect of gammarids on the structure of the macrozoobenthic community. ) ---- (*Doklady of the National Academy of Sciences of Belarus*) 64, 441-447. <https://doi.org/10.29235/1561-8323-2020-64-4-441-447> (In Russian. The alien gammarids are *Dikerogammarus haemobaphes*, *Echinogammarus ischnus*, *Obesogammarus crassus* and *O. obesus*.)
- Lipkowski, K., S. Steigerwald, L. M. Schulte, C. Sommers-Trembo & J. Jourdan 2021. Natural variation in social conditions affects male mate choosiness in the amphipod *Gammarus roeselii*. ---- *Current Zoology* 2021, zoab016. <https://doi.org/10.1093/cz/zoab016>
- Liu, J., M. Zhuang, L. Zhao, Y. Liu, Q. Wen, M. Fu, K. Wu, J. Zheng & P. He 2020 Taxonomy and genetic diversity of amphipods living on *Ulva lactuca* L. from Gouqi coast, China. ---- *Pacific Science* 74, 137-146. <https://doi.org/10.2984/74.2.3> (First Chinese records of *Ampithoe lacertosa*.)
- Liu, S.-P., Y.-M. Zheng, Y.-R. Wang, C.-D. Zhu & Z.-E. Hou 2021. The cephalic morphology of *Morinoia japonica* (Talitridae, Amphipoda, Malacostraca) and its implications of terrestrial adaptation and phylogeny. ---- *Zoologischer Anzeiger* 294, 1-9. <https://doi.org/10.1016/j.jcz.2021.07.005>
- Lizotte, R. E., R. W. Steinriede & M. A. Locke 2021. Occurrence of agricultural pesticides in Mississippi Delta Bayou sediments and their effects on the amphipod *Hyaella azteca*. ---- *Chemistry and Ecology* 2021. <https://doi.org/10.1080/02757540.2021.1886281>
- Lo Brutto, S. & D. Iaciovani 2020. New records of amphipod crustaceans along the Israeli Mediterranean coast, including a rare Mediterranean endemic species, *Maera schieckei* Karaman & Ruffo, 1971. ---- *Biodiversity Data Journal* 8: e53864. <https://doi.org/10.3897/BDJ.8.e53864>
- Lo Brutto, S., D. Iaciovano, V. Lo Turco, A. G. Potorti, R. Rando, V. Arizza & V. Di Stefano 2021. First assessment of plasticizers in marine coastal litter-feeder fauna in the Mediterranean Sea. ---- *Toxics* 9: 31. <https://doi.org/10.3390/toxics9020031>.

Longenecker, K. 2021. First record of two sublittoral amphipods from Hawai'i. ---- *Marine Biodiversity Records* 14: 9. <https://doi.org/10.1186/s41200-021-00205-9> (*Autonoe seurati* and *Periocolodes aequimanus*.)

Longo, S.J., W. Ray, G.M. Farley, J. Harrison, J. Jorge, T. Kaji, A.R. Palmer & S.N. Patek 2021. Snaps of a tiny amphipod push the boundary of ultrafast, repeatable movement. ---*Current Biology* 31: R116-R117. <https://doi.org/10.1016/j.cub.2020.12.025> (The snapping movement of *Dulichchiella* cf. *appendiculata* are shown to be among the fastest repeatable motions ever recorded. A very nice video is included with the paper.)

Lopes Costa, L., M. F. da Costa & I. Rosenthal Zalmon 2021. Macroinvertebrates as biomonitors of pollutants on natural sandy beaches: Overview and meta-analysis. ---- *Environmental Pollution* 275: 116629. <https://doi.org/10.1016/j.envpol.2021.116629>

Lörz, A.-N. & T. Horton 2021. Investigation of the Amathillopsidae (Amphipoda, Crustacea), including the description of a new species, reveals a clinging lifestyle in the deep sea worldwide. ---- *ZooKeys* 1031: 19-39. <https://doi.org/10.3897/zookeys.1031.62391> (*Amathillopsis inkenae* n. sp. is described from the Porcupine Abyssal Plain at 4622 m depth. Discussion - and beautiful pictures) of their clinging behaviour in the deep sea)

Lörz, A.-N., S. Kaiser, J. Oldeland, C. Stolter, K. Kürzel, K. & S. Brix 2021. Biogeography, diversity and environmental relationships of shelf and deep-sea benthic Amphipoda around Iceland. ----*PeerJ* 9:e11898. <https://doi.org/10.7717/peerj.11898> (Depth, salinity and temperature seem to be the main drivers separating the amphipods into four communities in the area.)

Love, A. C., N. Crooks & A. T. Ford 2020. The effects of wastewater effluent on multiple behaviours in the amphipod, *Gammarus pulex*. ---- *Environmental Pollution* 267: 115386. <https://doi.org/10.1016/envpol.2020.115386>

Lowry, J. K. & R. Springthorpe 2021. *Pictonorchestia*, a new genus of riparian-hopper from New Zealand (Crustacea, Amphipoda, Senticaudata, Talitridae). ---- *Zootaxa* 4938, 346-350. <https://doi.org/10.11646/zootaxa.4938.3.5> (*Pictonorchestia* new genus, erected for *Orchestia dentata* Filhol; the genus is as yet monotypic)

Lowry, J. K., R. T. Springthorpe & A. A. Myers 2020. *Carpentaria* gen. nov., a new talitrid genus from tropical Australia (Amphipoda, Senticaudata, Talitroidea, Protorchestiidae). ---- *Zootaxa* 4834, 425-433. <https://doi.org/10.11646/zootaxa.4834.3.5> (Deals with *Carpentaria limicola* (transferred from *Talorchestia*) and *C. tropicalis* n. sp. (earlier erroneously identified and published as *Floresorchestia limicola*). The type locality is Darwin, and these are the only two species in this new genus)

Lubyaga, Y. A., A. V. Dolgikh, P. B. Drozdova, A. A. Nazarova & M. A. Timofeyev 2021. Transcriptome-based analysis of the diversity of membrane-bound lectins in Baikal amphipods *Eulimnogammarus* sp. and the Holarctic amphipod *Gammarus lacustris*. ---- *Limnology & Freshwater Biology* 2020(4), 797-798. <https://doi.org/10.31951/2658-3518-2020-A-4.797>

Lynn, K. D., D. Quintanilla-Ahumada, C. Anguita, S. Widdicombe, J. Pulgar, P. H. Manriquez, P. A. Quijon & C. Duarte 2021. Artificial lights at night alters the activity and feeding behavior of sandy beach amphipods and pose a threat to their ecological role in Atlantic Canada. ---- *Science of the Total Environment* 780: 146568. <https://doi.org/10.1016/j.scitoenv.2021.146568> (*Americorchestia longicornis*)

Ma, C., L. Li, Q. Chen, J.-S. Lee, J. Gong & H. Shi 2021. Application of internal persistent fluorescent fibers in tracking microplastics *in vivo* processes in aquatic organisms. ---- *Journal of Hazardous Materials* 401: 123336. <https://doi.org/10.1016/j.jhazmat.2020.123336>. (i.a. *Hyaella azteca*)

Macadam, C. R. 2021. Freshwater aquatic invertebrates on the Isle of May, Scotland. ---- *The Glasgow Naturalist* 27-3. <https://doi.org/10.37208/tgn27323>

Macdonald, A. 2021. *The effects of decompression and subsequent re-compression on the activity of deep-sea animals and eukaryote cells. The isobaric collection of deep-sea animals.* ---- Pp 117-149 in *Life at High Pressure* (Not seen) [https://doi.org/10.1007/978-3-030-67587-5\\_5](https://doi.org/10.1007/978-3-030-67587-5_5)

Macdonald, A. 2021. *Adaptation to high pressure in the laboratory.* --- Pp 327-352 in *Life at High Pressure* (Not seen). [https://doi.org/10.1007/978-3-030-67587-5\\_12](https://doi.org/10.1007/978-3-030-67587-5_12)

Mamos, T., K. Jażdżewski, Z. Čiamporová-Zat'ovičová, F. Ciampor & M. Grabowski 2021. Fuzzy species borders of glacial survivalists revealed using a multimarker approach—a case study of amphipod crustaceans in the Carpathian biodiversity hotspot. ---- *Scientific Reports* 11, 21629. <https://doi.org/10.1038/s41598-021-00320-8> (On the *Gammarus balcanicus* complex, with *G. tatrensis* and *G. stasiuki* Jażdżewski, Mamos & Grabowski n. sp. from the Bieszczady Mountains, eastern Carpathians.)

Mancini, F., R. de Giorgi, A. Ludovisi, S. Vizzini & G. Mancinelli 2021. Ontogenetic shift in the trophic role of the invasive killer shrimp *Dikerogammarus villosus*: a stable isotope study. ---- *Biological Invasions* 23, 1803-1817. <https://doi.org/10.1007/s10530-021-02472-0>

Manenti, R. & B. Barzaghi 2021. Diel activity of *Niphargus* amphipods in spring habitats. ---- *Crustaceana* 94, 705-721. <https://doi.org/10.1163/15685403-bja10117> (Not seen)

Manokaran, S., T. V. Joydas, M. A. Qurban, L. L. Cheruvathur, T. J. Kariyathil, A. U. Basali, S. A. Khan & A. Al-Suwailem 2021. Baseline patterns of structural and functional diversity of benthic amphipods in the western Arabian Gulf. ---- *Marine Pollution Bulletin* 164: 112054. <https://doi.org/10.1016/j.marpolbul.2021.112054> (62 spp recorded)

Marchessaux G., M. Harmelin-Vivien, M. Ourgaud, D. Bănaru, L. Guilloux, B. Belloni, B. Lebreton, G. Guillou & D. Thibault 2020. First overview on trophic relationships of the invasive ctenophore *Mnemiopsis leidyi* in a Mediterranean coastal lagoon (Berre Lagoon, France): Benthic-pelagic coupling evidenced by carbon and nitrogen stable isotope composition. ---- *Regional Studies in Marine Science* 41, 101570. <https://doi.org/10.1016/j.rsma.2020.101570> (*Monocorophium insidodum* is prey)

Marin, I. N. 2020. The quaternary speciation in the Caucasus: a new cryptic species of stygobiotic amphipod of the genus *Niphargus* (Crustacea: Amphipoda: Niphargidae) from the Kumistavi (Prometheus) Cave, western Georgia. ---- *Arthropoda Selecta* 29, 419-432. [https://kmkjournals.com/journals/AS/AS\\_Index\\_Volumes/AS\\_29/AS\\_29\\_4\\_419\\_432](https://kmkjournals.com/journals/AS/AS_Index_Volumes/AS_29/AS_29_4_419_432) (*Niphargus amirani* n. sp.)

Marin, I., S. Krylenko & D. Paltov. 2021. The Caucasian relicts: A new species of the genus *Niphargus* (Crustacea: Amphipoda: Niphargidae) from the Gelendzhik-Tuapse area of the Russian southwestern Caucasus. ---- *Zootaxa* 4963: 483-504. <https://doi.org/10.11646/zootaxa.4963.3.5> (*Niphargus bzhidik* sp. nov. a blind, epigeal and carnivorous species)

Marin, I. & D. Palatov 2021. Cryptic refuge on the northern slope of the Greater Caucasus Ridge: discovery of *Niphargus* (Crustacea: Amphipoda: Niphargidae) in the North Ossetia-Alania, North Caucasus, separated from its relatives in the late Miocene. ---- *Zoologischer Anzeiger* 292, 163-183. <https://doi.org/10.1016/j.jcz.2021.03.002> (Deals with *N. alanicus* n. sp. (Alania, North Ossetia), *N. ablaskiri*, and *N. inermis*.)

Marin, I. N. & D. M. Palatov 2021. *Volgonyx* gen. n. and *Pontonyx* gen. n., two new genera of the family Crangonyctidae (Crustacea: Amphipoda) from the southeastern Europe. ---- *Arthropoda Selecta* 30, 43-61. <https://doi.org/10.15298/arthsel.30.1.05> (*Volgonyx* n. gen is erected for *Synurella dershavini* (here fully described and illustrated), and *Pontonyx* for *Synurella odessana* (generotype) and *S. osellai*)

Marin, I. & D. Palatov 2021. New and non-alien: *Echinogammarus mazestiensis* sp.n. from the southwestern Caucasus. ---- *Zoology in the Middle East* 67, 309-320. <https://doi.org/10.1080/09397140.2021.1949139> (*E. mazestiensis* n. sp. from the Mazesta River, Sochi area, SW Caucasus)

Marin, I. N. & D. M. Palatov 2021. The hidden diversity of the genus *Lyurella* Derzhavin, 1939 (Crustacea: Amphipoda: Crangonyctidae): four new species from the subterranean habitats of the northwestern Caucasus, Russia. ---- *Zootaxa* 5006, 127-168. <https://doi.org/10.11646/>

[zootaxa.5006.1.17](#) (Deals with *L. mikhailovi* n. sp. (Tuapsinsky district, Krasnodar krai), *L. fanagorica* Palatov & Marin n. sp. (Goryachi Klyuh, Krasnodar krai), *L. fontinalis* n. sp. (Lazarevsky district, Sochi, Krasnodar krai), and *L. asheensis* Palatov & Marin n. sp. (Lazarevsky district, Sochi, Krasnodar krai). With a key to all *Lyurella* species.)

Martin, L. M., M. Taylor, G. Huston, D. S. Goodwin, J. M. Schell & A. M. S. Siuda 2021. Pelagic *Sargassum* morphotypes support different rafting motile epifauna communities. ---- *Marine Biology* 168: 115. <https://doi.org/10.1007/s00227-021-03910-2>

Martinez-Laiz, G., M. Ros, J. M. Guerra-Garcia, M. Faasse, A. M. Santos & M. P. Cabezas 2021. Using molecular data to monitor the post-establishment evolution of the invasive skeleton shrimp *Caprella scaura*. ---- *Marine Environmental Research* 166: 105266. <https://doi.org/10.1016/j.marenvres.2021.105266>

Mateos-Cardenas, A., J. O'Halloran, F. N. A. M. van Pelt & M. A. K. Jansen 2020. Rapid fragmentation of microplastics by the freshwater amphipod *Gammarus duebeni* (Lillj.). ---- *Scientific Reports* 10: 12799. <https://doi.org/10.1038/s41598-020-69635-2>

Mateos-Cardenas, A., J. O'Halloran, F. N. A. M. van Pelt & M. A. K. Jansen 2021. Beyond plastic microbeads—Short-term feeding of cellulose and polyester microfibers to the freshwater amphipod *Gammarus duebeni*. ---- *Science of the Total Environment* 753, 141859. <https://doi.org/10.1016/j.scitotenv.2020.141859>

Mavraki, N., S. Degraer, J. Vanaverbeke & U. Braeckman 2021. Organic matter assimilation by hard substrate fauna in an offshore wind farm area: a pulse-chase study. ---- *ICES Journal of Marine Science* 77, 2681-2693. <https://10.1093/icesjms/fsaa133> (*Jassa herdmani*)

Mayen-Estrada, R. & R. J. Pedroso Dias 2021. A checklist of species of the family Zoothamniidae (Ciliophora: Peritrichia), symbionts of crustaceans. ---- *Zootaxa* 4949, 557-581. <https://doi.org/10.11646/zootaxa.4949.3.7>.

Mekhanikova, I. V. 2021. (Calceoli, the antennal sensory organs of amphipods (Crustacea, Amphipoda, Gammaridea) from Lake Baikal.) ---- *Zoologicheskyy Zhurnal* 100, 134-146. <https://10.31857/S0044513421020249> (In Russian; a rich source of information)

Melo, M. S. de, K. Das & E. Gismondi 2021. Inorganic mercury effects on biomarker gene expressions of a freshwater amphipod at two temperatures. ---- *Ecotoxicology and Environmental Safety* 209: 111815. <https://doi.org/10.1016/j.ecoenv.2020.111815> (*Gammarus* sp.)

Mercer, A.A. & R. D. Cothran. 2021. Interspecific competition affects resource use by three cryptic freshwater species of *Hyaella* Smith, 1874 (Amphipoda: Hyaellidae). ---- *Journal of Crustacean Biology* 41: ruab019. <https://doi.org/10.1093/jcbiol/ruab019> (*Hyaella spinicauda*, *H. wellborni* and a third yet undescribed *Hyaella*)

Meszner, U. & M. L. Zettler 2021. Drastic changes of the amphipod fauna in northern Germany and the displacement of *Gammarus lacustris* G. O. Sars, 1864 to relict habitats/status. ---- *Knowledge and Management of Aquatic Ecosystems* 422, 17. <https://doi.org/10.1051/kmae/2021016> (With a list of all limnic amphipods in the area.)

Miller, T. H., K. T. Ng, A. Lamphiere, T. C. Cameron, N. R. Bury & L. P. Barron 2021. Multicompartment and cross-species monitoring of contaminants of emerging concern in an estuarine habitat. ---- *Environmental Pollution* 270: 116300. <https://doi.org/10.1016/j.envpol.2020.116300> (*Gammarus pulex*)

Mohrbeck, I., T. Horton, A. M. Jazdzewska & P. Martinez Arbizu 2021. DNA barcoding and cryptic diversity of deep-sea scavenging amphipods in the Clarion-Clipperton Zone (Eastern Equatorial Pacific). ---- *Marine Biodiversity* 51: 26. <https://doi.org/10.1007/s12526-021-01170-3> (Cryptic biodiversity is discovered)

Moore, P. G. 2021. Clarifying the biographical etymologies of the species epithets of *Bathyporeia guilliamsoniana* and *Hyale perieri* (Crustacea: Amphipoda). ---- *Archives of Natural History* 48: 179-187. <https://doi.org/10.3366/anh.2021.0696>

Mosbahl, N., J.-P. Pezy, L. Nelfar & J.-C. Dauvin 2021. Ecological status assessment and non-indigenous species in industrial and fishing harbours of the Gulf of Gabès (central Mediterranean Sea). ---- *Environmental Science and Pollution Research*, online. <https://doi.org/10.1007/s11356-021-14729-1>

Muffett, K. & M. P. Miglietta 2021. Planktonic associations between medusae (classes Scyphozoa and Hydrozoa) and epifaunal crustaceans. ---- *Peer Journal* 9: e11281. <https://doi.org/10.7717/peerj.11281> (All records of associations known to the authors are listed in Table 1, organized by hosts)

Mülayim, A. 2020. Species composition and seasonal variation of peracarids (Crustacea: Peracarida) of the Istanbul Strait (Turkey). ---- *Applied Ecology and Environmental Research* 18, 8321-8342. [http://dx.doi.org/10.15666/aeer/1806\\_83218342](http://dx.doi.org/10.15666/aeer/1806_83218342) (*Animoceradocus semiserratus*, *Echinogammarus stocki* and *Leptocheirus bispinosus* are new to the Sea of Marmara. All amphipods listed in Table 2)

Mülayim, A. 2021. Soft-bottom crustacean fauna from the Turkish coast of the Black and Marmara Seas with new records. ---- *Oceanological and Hydrobiological Studies* 50, 60-76. <https://doi.org/10.2478/oandhs-2021-0007> (*Synchelidium maculatum* new for Marmara Sea, *Gammaropsis palmata*, *Pontocrates arenarius* and *Synchelidium haplocheles* are new to the Black Sea. All amphipods listed in Table 3)

Murphy, C. E., R. J. Orth & J. S. Lefcheck 2021. Habitat primarily structures seagrass epifaunal communities: a regional-scale assessment in the Chesapeake Bay. ---- *Estuaries and Coasts* 44, 442-445. <https://doi.org/10.1007/s12237-020-00864-4>

Naddafi, R., N. H. Koupayeh & R. Ghorbani 2021. Spatial and temporal variations in stable isotope values (d13C and d15N) of the primary and secondary consumers along the southern coastline of the Caspian Sea. ---- *Marine Pollution Bulletin* 164: 112001. <https://doi.org/10.1016/j.marpolbul.2021.112001>

Navarro-Mayoral, S., V. Fernandez-Gonzalez, F. Otero-Ferrer & F. Tuya 2020. Spatio-temporal variability of amphipod assemblages associated with rhodolith seabeds. ---- *Marine & Freshwater Research* 72, 76-83. <https://doi.org/10.1071/MF19360>

Nazarova, A. A., A. N. Gurkov, K. P. Vereshchagina, A. D. Mutin & M. A. Timofeyev 2020. First steps to obtaining primary cell cultures of different tissues of endemic Baikal amphipods *Eulimnogammarus verrucosus*. ---- *Limnology and Freshwater Biology* 2020(4), 805-806. <https://doi.org/10.31951/2658-3518-2020-A-4-805>

Negro, C. L., J. F. Estrubia, F. Rivera & P. Collins 2021. Effects of chlorpyrifos over reproductive traits of three sympatric freshwater crustaceans. ---- *Bulletin of Environmental Contamination and Toxicology* 106, 759-764. <https://doi.org/10.1007/s00128-020-03091-6> (*Hyaella curvispina*)

Neuparth, T., A. M. Machado, R. Montes, R. Rodil, S. Barros, N. Alves, R. Ruivo, L. F. C Castro, J. B. Quintana & M. M. Santos 2020. Transgenerational inheritance of chemical-induced signature: A case study with simvastatin. ---- *Environment International* 144: 106020. <https://doi.org/10.1016/j.envint.2020.106020> (*Gammarus locusta*)

Nolte, T. M., J. P. M. Vink, W. De Cooman, R. van Zelm, R. Elst, E. Ryken & A. J. Hendriks 2021. Ammonia and chromate interaction explains unresolved *Hyaella azteca* mortality in Flanders' sediment bioassays. ---- *Chemosphere* 271: 129446. <https://doi.org/10.1016/j.chemosphere.2020.129446>

Ocaña, F. A., M. M. Mouso-Batista & I. Hernandez-Avila 2020. Macrofaunal assemblages from two low-energy sandy beaches within contrasting salinity environments in Northeastern Cuba. ---- *Regional Studies in Marine Science* 40: 101484. <https://doi.org/10.1016/j.rsma.2020.101484>

O'Dwyer, J. E. & N. P. Murphy 2021. Long term environmental stability drives reduced stress tolerance in salt lake invertebrates. ---- *Rethinking Ecology* 6, 49-64. <https://doi.org/10.3897/rethinkingecology.6.58899> (i.a. *Austrochiltonia subtenuis*)

Ogawa, H., Y. Takada & K. Sakuma 2021. A new species of the sand-burrowing Dogielinotidae, *Haustorioides furotai*, from Tokyo Bay, Japan (Crustacea: Amphipoda). ---- *Species Diversity* 26, 65-78. <https://120.12782/specdiv.26.65> (*H. furotai* Ogawa n. sp. from Kisarazu City, Chiba pref.. The genera *Eohaustorioides* and *Parhaustorioides* are synonymized with *Haustorioides*. A key to all *Haustorioides* species is provided.)

de Oliveira Fernandes, F., M. S. Barbosa-Silva, J. F. de Jesus Resende, G. O. Longo & E. Marinho-Soriano. 2021. Food source or refuge: What is behind amphipod choices for seaweeds? ---- *Marine Ecology*: e12652. <https://doi.org/10.1111/maec.12652> (Amphipods (*Ampithoe marcuzzi*) go for seaweeds without chemical and physical defences, both for food and shelter.)

Omer, M. Y., K. F. Abd El-Wakeidi, H. N. M. Hussein & S. H. Rashedy 2021. Invertebrate assemblages associated with seaweeds at different locations in the Red Sea, Egypt. ---- *Egyptian Journal of Aquatic Biology & Fisheries* 25, 407-421. <https://doi.org/10.21608/EJABF.2021.143933>

Pala, A., O. Serdar & R. Aydin 2020. The acute effect of malathion on acetylcholinesterase activity in *Gammarus pulex* (freshwater Amphipoda). ---- *Acta Aquatica Turcica* 16, 202-208. <https://doi.org/10.22392/actaquatr.628330>

Palatov, D. M. & I. N. Marin 2020. A new genus of the family Crangonyctidae (Crustacea, Amphipoda) from the Palaearctic, with descriptions of two new species from the foothills of the Altai Mountains. ---- *Zoologicheskyy Zhurnal* 99, 1160-1186. <https://doi.org/10.31857/S004451342010013X>. (In Russian, not seen. *Palaearcticarellus smirnovi* n. gen., n. sp., and *P. sapozhnikov* n. sp.)

Palatov, D. M. & I. N. Marin 2021. Epigeal (pond-dwelling) species of the genus *Niphargus* Schiödte, 1849 (Crustacea: Amphipoda: Niphargidae) from the coastal plains of the Black and Azov Seas of the north- and southwestern Caucasus. ---- *Invertebrate Zoology* 18 (2), 101-115. <https://doi.org/10.15298/invertzool.18.2.05> (Deals with *Niphargus hrabei*, *N. potamophilus*, *N. valachicus* and *N. magnus*)

Pang, K.-L., B. T. Hassett, A. Shaumi, S.-Y. Guo, J. Sakayaroj, M. W.-l. Chiang, C.-H. Yang & E. B. G. Jones, 2021. Pathogenic fungi of marine animals: A taxonomic perspective. ---- *Fungal Biology Reviews*, in press. <https://doi.org/10.1016/j.fbr.2021.03.008>.



Paris, M., C. Wolff, N. H. Patel & M. Averof 2021. The crustacean model *Parhyale hawaiiensis*. ---- *Preprints*, 2021: 2021060018. <https://doi.org/10.29044/preprints202106.0018.v1> (An overview of *Parhyale* studies.)

Park, E. 2021. *Hidden diversity of two intracellular parasites, Microsporidia and Rickettsia, in New Zealand amphipod hosts: patterns and causes*. ---- D. Phil. Thesis, Univ. of Otago. (Not seen)

Park, E. & R. Poulin 2020. Widespread Torix *Rickettsia* in New Zealand amphipods and the use of blocking primers to rescue host COI sequences. ---- *Scientific Reports 10*: 16842. <https://doi.org/10.1038/s41598-020-73986-1>

Park, E. & R. Poulin 2021. Two parasites in one host: Spatiotemporal dynamics and co-occurrence of Microsporidia and *Rickettsia* in an amphipod host. ---- *Parasitology*: 1-28. <https://doi.org/10.1017/S0031182021000810> (Host is *Paracalliope fluviatilis* from the South Island of New Zealand)

Park, S., J. Im, J. Lee & T. W. Kim 2021. Ocean freshening adversely affects the food detection ability of the gammarid amphipod *Haustorioides koreanus*. ---- *Marine & Freshwater Research 72*, 1045-1052. <https://doi.org/10.1071/MF20068>

Parlapiano, I., F. Biandolino, A. Grattagliano, A. Ruscito, G. Libralato & E. Prato 2021. Effects of commercial formulations of glyphosate on marine crustaceans and implications for risk assessment under temperature changes. ---- *Ecotoxicology and Environmental Safety 213*: 112068. <https://doi.org/10.1016/j.ecoenv.2021.112068> (*Corophium insidiosum*)

Parretti, P., M. Ros, I. Gestoso, P. Ramalhosa, A. C. Costa & J. Canning-Clode 2021. Assessing biotic interactions between a non-indigenous amphipod and its congener in a future climate change scenario. ---- *Aquatic Invasions 16*, 186-207. <https://doi.org/10.3391/ai.2021.16.2.01>. (*Caprella scaura* and *C. equilibra*)

Patel, C., A.N. Vadher, K.L. Mathers, C. Dwyer & P.J. Wood, 2021. Body size affects the vertical movement of benthic amphipods through subsurface sediments in response to drying. ---- *Hydrobiologia 848*: 1015-1025. <https://doi.org/10.1007/s10750-020-04500-x> (Larger specimens are more likely to be trapped above waterline, and sediments might be a refuge)

Patoka, J., R. E. Prabowo, M. Petryl, J. D. Reynolds, P. Kurikova, B. P. D. Zamenkova-Wanma & L. Kalous 2020. Marine hitchhikers: a preliminary study on invertebrates unintentionally transported via the international pet trade. ---- *NeoBiota 61*, 33-46. <https://doi.org/10.3897/neobiota.61.57682>

Paz-Rios, C. E., D. Pech, L. F. Carrera-Parra & N. Simões 2021. Biodiversity and biogeographic affinity of benthic amphipods from the Yucatan Shelf: an analysis across the warm Northwest Atlantic ecoregions. ---- *Systematics and Biodiversity*, online. <https://doi.org/10.1080/14772000.2021.1947920>

Peck, S. B., J. J. Lewis & J. O. Whitaker 2020. *Cave faunas of the Upper Mississippi Valley region*. --- Pp 255-281 in *Cave and Karst Systems of the World*. [https://doi.org/10.1007/978-3-030-54633-5\\_9](https://doi.org/10.1007/978-3-030-54633-5_9) (Not seen)

Pedroza-Ramos, A., C. E. Tamaris-Turizo & N. Aranguren- Riaño 2020. Feeding preference in aquatic invertebrates associated to *Egeria densa* in a tropical high-mountain lake. ---- *Revista de Biología Tropical* 68 (Suppl. 2), S92-S103. <http://dx.doi.org/10.15517/rbt.v68is2.44341>

Pekkoeva, S. N., V. P. Voronin, Z. M. Shatilina, E. V. Madyarova, D. V. Axenov-Gribanov, Y. A. Shirokova, M. A. Timofeyev, N. N. Nemova & S. A. Murzina 2021. Lipid and fatty acid composition of scavenging amphipods *Ommatogammarus* spp. from different depths of Lake Baikal. ---- *Limnology* 22, 299-311. <https://doi.org/10.1007/s10201-021-00657-z> (*O. flavus* and *O. albinus*.)

Pelletier, M., D. Cobb, K. Rocha, K. T. Ho, M. G. Cantwell, M. Perron, M. A. Charpentier, H. W. Buffum, S. S. Hale & R. M. Burgess 2021. Benthic macroinvertebrate community response to environmental changes over seven decades in an urbanized estuary in the northeastern United States. ---- *Marine Environmental Research* 169: 105323. <http://doi.org/10.1016/j.marenvres.2021.105323>

Peres, P. A., A. P. Ferreira, G. B. O. Machado, M. Azevedo-Silva, S. G. L. Siqueira & F. P. P. Leite 2021. Sex-biased dispersal depends on the spatial scale in a tube-building amphipod. ---- *Marine Ecology Progress Series* 658, 135-148. <https://doi.org/10.3354/meps13552>. (*Cymadusa filosa*)

Perez-Botello, A. M. & N. Simões 2021. Sponge-dwelling fauna: a review of known species from the Northwest Tropical Atlantic coral reefs. ---- *Biodiversity Data Journal* 9: e63372. <https://doi.org/10.3897/BDJ.9.e63372>. (Not seen, unfortunately)

Perez-Schultheiss, J., L. D. Fernandez & F. Bezerra-Ribeiro 2021. Designation of a neotype for *Orchestoidea tuberculata* Nicolet, 1849 (Amphipoda: Senticaudata: Talitridae), a monotypic sandhopper endemic to the southeastern Pacific coast. ---- *Zootaxa* 4999, 377-388. <https://doi.org/10.11646/zootaxa.3/4999.4.7>

Perez-Schultheiss, J. & J. Sellanes 2021. The occurrence of the parasitic amphipod *Trischizostoma crosnieri* Lowry & Stoddart, 1993 (Amphipoda: Amphilochoidea: Lysianassida) in a methane seep

site in the southeastern Pacific. ---- *Latin American Journal of Aquatic Research* 49, 365-368. <https://doi.org/10.3856/vol49-issue2-fulltext-2536>. (Collected off Concepcion, Chile)

Petkovic, M., D. Milicic, V. Tomic & S. Makarov 2020. Checklist of the genus *Niphargus* Schiödte, 1849 (Amphipoda: Niphargidae) in Serbia, with some remarks on their distributions. ---- *Arthropoda Selecta* 29, 433-442. <https://doi.org/10.15298/arthscl.29.4.05> (22 species listed)

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Schwentner, M., Lörz, A.-N. 2021. Population genetics of cold-water coral associated Pleustidae (Crustacea, Amphipoda) reveals cryptic diversity and recent expansion off Iceland. ---- *Marine Ecology 42*: e12625. <https://doi.org/10.1111/maec.12625> (Genetic description of cryptic species within several Pleustidae using COI and ddRAD. All putative species are associated with different coral hosts. No formal description of new species.)

Senna, A. R., U. N. Guedes, L. F. Andrade & G. H. Pereira-Filho 2021. A new species of amphipod *Pariphinotus* Kunkel, 1910 (Amphipoda: Phliantidae) from southwestern Atlantic. --- *Zoological Studies 60*, 57. <https://doi.org/10.6620/ZS.2021.60-57> (*P. amadoi* n. sp. from Fernando de Noronha archipelago, Pernambuco state, Brazil. With a key to all *Pariphinotus* species)

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Sharold, J.V. & T. D. Corry. 2021. Status of the amphipod *Diporeia* spp. in Lake Superior, 2006-2016. ---- *Journal of Great Lakes Research* 47, 1033-1039. <https://doi.org/10.1016/j.jglr.2021.04.013> (Seems to go better in Lake Superior than in the other great lakes...)

Shaw, J. C., E. H. Henriksen, R. Knudsen, J. A. Kuhn, A. M. Kuris, K. D. Lafferty, A. Siwertsson, M. Soldanova & P.-A. Amundsen 2020. High parasite diversity in the amphipod *Gammarus lacustris* in a subarctic lake. ---- *Ecology and Evolution* 10, 12385-12394. <https://doi.org/10.1002/ece3.6869> (A study from N. Norway.)

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Shirakashi, S. & T. Takagi 2020. Consumption of monogenean eggs by crustaceans and fish. ---- *Aquaculture Research* 2020: 1-10. <https://doi.org/10.1111/are.15040> (*Caprella* sp. and *Ptilohyale barbicornis* used as 'cleaners' in aquaculture.)

Siddique, A., J. Purushothaman & C. Raghunathan 2020. *Arthropoda: Crustacea: Amphipoda*. ---- Chapter 32, pp 359-374, in: Faunal diversity of Biogeographic zones: coasts of India (Consists mostly of a list of species, with references to the original authors.)

Silveira de Melo, M., K. Das & E. Gismondi 2021. Inorganic mercury effects on biomarker gene expressions of a freshwater amphipod at two temperatures. ---- *Ecotoxicology and Environmental Safety* 200: 111815. <https://doi.org/10.1016/j.ecoenv.2020.111815> (*Gammarus* sp.)

Simcic, T. & B. Sket 2021. Ecophysiological responses of two closely related epigeal and hypogean *Niphargus* species to hypoxia and increased temperature: Do they differ? ---- *International Journal of Speleology* 50, 111-120. <https://doi.org/10.5038/1827-806X.50.2.2369> (*N. zagrebensis* and *N. stygius*. And yes, they do differ.)

Simpson, S. L., Y. Liu, D. A. Spadaro, X. Wang, R. S. Kookana & G. E. Batley 2021. Chronic effects and thresholds for estuarine and marine benthic organism exposure to perfluorooctane sulfonic acid (PFOS)-contaminated sediments: Influence of organic carbon and exposure routes. ---- *Science of the Total Environment* 776: 146008. <https://doi.org/10.1016/j.scitotenv.2021.146008> (i.a. *Melita plumulosa*)

Siqueira, S. G. L., K. F. R. Mansur, T. Iwasa-Arai & F. P. P. Leite 2021. First observations on surface activity of sandy beach arthropods at the pristine marine reserve of Rocas Atoll, northeastern Brazil. ---- *Regional Studies in Marine Science* 44, 101765. <https://doi.org/10.1016/j.rsma.2021.101765> (I.A. *Speziorchestia tucurauna*)

Sirotnina, E. A., E. V. Romanova & D. Y. Sherbakov 2020. Dynamics of gene order rearrangements in mitochondrial genomes of Baikalian amphipods. ---- *Limnology and Freshwater Biology* 2020 (4), 818-819. <https://doi.org/10.31951/2685-3518-2020-A.4.818>

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Strafella, P., V. Salvalaggio, C. Cuicchi, E. Punzo, A. Santelli, A. Colombelli, G. Fabi & A. Spagnolo 2021. New geographical record of three cumacean species *Eudorella nana*, *Leucon affinis*, *Leucon siphonatus* and one rare amphipod presence confirmation, *Stenothoe bosporana*,



in Adriatic Sea, Italy. ---- *Thalassas: An International Journal of Marine Sciences* 37, 791-801. <https://doi.org/10.1107/s41208-021-00294-4> (Table 3 lists all amphipod and cumacean species collected during the survey)

Sudo, H. & G. Yoshida 2021. Effects of a reduction in algal nitrogen content on survival, growth, and reproduction of an herbivorous amphipod. ---- *Journal of Experimental Marine Biology and Ecology* 539: 151543. <https://doi.org/10.1016/j.jembe.2021.151543> (*Ampithoe tarasovi*)

Svara, V., M. Krauss, S. G. Michalski, R. Altenburger, W. Brack & T. Luckenbach 2021. Chemical pollution levels in a river explain site-specific sensitivities to micropollutants within a genetically homogeneous population of freshwater amphipods. ---- *Environmental Science & Technology* 55, 6087-6096. <https://doi.org/10.1021/acs.est.0c07839>. (*Gammarus pulex*)

Taddei, A., K. Räsänen & F. J. Burdon 2021. Size-dependent sensitivity of stream amphipods indicates population-level response to chemical pollution. ---- *Freshwater Biology* 66, 765-784. <https://doi.org/10.1111/fwb.13677> (*Gammarus fossarum*)

Taipale, S. J., E. Kers, E. Peltomaa, J. Loehr & M. J. Kainz 2021. Selective fatty acid retention and turnover in the freshwater amphipod *Pallaseopsis quadrispinosa*. ---- *Biomolecules* 11: 478. <https://doi.org/10.3390/biom11030478>

Takahashi, T., H. Morino, K. Tomikawa, Y.-T. Lai & T. Nakano 2021. Molecular phylogenetic position of *Minamitalitrus zoltani* elucidates a further troglobisation pattern in cave-dwelling terrestrial amphipods (Crustacea: Talitridae). ---- *Molecular Phylogenetics and Evolution* 154: 106984. <https://doi.org/10.1016/j.ymoev.2020.106984> (A new genus, *Yamatorchestia* Takahashi & Morino, is erected for *Nipponorchestia nudiramus*.)

Takahashi, T., N. Sawada & T. Nakano 2021. First record of the terrestrial amphipod, *Talitroides alluaudi* (Chevreux, 1896) (Crustacea, Amphipoda, Brevitelatridae), from Japan. ---- *Check List* 17, 359-363. <https://doi.org/10.15560/17.2.359> (Recorded from Miyako Island, Ryukyu Islands.)

Takeuchi, I., M. Shiraishi, R. Mimori 2021. A New Species of the Genus *Caprella* (Crustacea: Amphipoda: Caprellidae) Collected from a Gorgonian at 1497 m Depth off Boso Peninsula, Central Japan. ---- *Species Diversity*. 26(2): 225-233. <https://doi.org/10.12782/specdiv.26.225> (*Caprella nojimaensis* n.sp. is associated with the gorgonian *Calcigorgia gracilis*.)

Talhaferro, J. T., A. A. de Pádua Bueno, M. M. Pires, C. Steinert, L. Malthick & C. B. Kotzian. 2021. Three new species of *Hyaella* (Crustacea: Amphipoda: Hyaellidae) from the Southern Brazilian Coastal Plain. ---- *Zootaxa* 4970: 257-292. <https://doi.org/10.11646/zootaxa.4970.2.2> (*Hyaella minuana* n.sp. from Rio Grande do Sul, *H. lagoana* n.sp. from Rio Grande do Sul and Santa Catarina and *H. sambaqui* n.sp. from Santa Catarina)

- Tani, K., H. Watanabe, M. Noguchi, K. Hiki, T. Yamagishi, N. Tatarazako & H. Yamamoto 2021. Toxicity assessment of typical polycyclic aromatic hydrocarbons to *Daphnia magna* and *Hyaella azteca* in water-only and sediment-water exposure systems. ---- *Science of the Total Environment* 784: 147156. <https://doi.org/10.1016/j.scitotenv.2021.147156>
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- Tomikawa, K., H.K. Watanabe, K. Tanaka & Y. Ohara 2021. A new species of *Princaxelia* from Shinkai Seep Field, Mariana Trench (Crustacea, Amphipoda, Pardaliscidae). ---- *ZooKeys* 1015: 115-127. <https://doi.org/10.3897/zookeys.1015.59683> (*Princaxelia marianaensis* sp. nov. from 5689-5683m depth in the Mariana Trench. Includes a key to world *Princaxelia*.)
- Torn, K., K. Herkül, A. Peterson & Ü. Suursaar 2020. *Predicting potential effects of climate change on benthic species: current and future distribution of native and non-native charophytes and amphipods.* ---- in WIT Transactions on Ecology and the Environment 245, 85-95. <https://doi.org/10.2495/EID200091>
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- Ugolini, A., A. Nistri, P. Agnelli, A. Ciofini & D. C. Wilcockson 2020. The role of the antennae in the compass-based orientation of the equatorial sandhopper *Talorchestia martensii* Weber

(Crustacea, Amphipoda). ---- *Ethology Ecology & Evolution* 33, 406-418. <https://doi.org/10.1080/03949370.2020.1844303>

Urrutia, A., K. Mitsi, R. Foster, S. Ross, M. Carr, I. Marigomez, M. M. Leger, I. Ruiz-Trillo, S. W. Feist & D. Bass 2021. *Txikispora philomaios* n. sp., n. g., a micro-eukaryotic pathogen of amphipods, reveals parasitism and hidden diversity in class Filasterea. ---- *Eukaryotic Microbiology*, e12875. <https://doi.org/10.1111/jeu.12875> (found in *Echinogammarus* and *Orchestia*)

Vader, W., J. R. Johnsen & A. H. S. Tandberg 2020. *Onisimus turgidus* (Sars, 1879) (Amphipoda, Uristidae), an overlooked amphipod from sea anemones in Northern Norway. ---- *European Journal of Taxonomy* 724, 35-50. <https://doi.org/105852/ejt.2020.724.1155> (Both *O. turgidus* and *O. normani* are fully illustrated, with data on their biology.)

Vader, W. & A. H. S. Tandberg 2020. Amphipods and sea anemones , an update. ---- *Journal of Crustacean Biology* 40, 872-878. <https://doi.org/10.1093/jcbiol/ruaa061>.

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Vereshchagina, K., E. Kondrateva, A. Mutin, L. Jakob, D. Bedulina, E. Shchapova, E. Madyarova, D. Axenov-Gribanov, T. Luckenbach, H.-O. Pörtner, M. Lucassen & M. Timofeyev. 2021. Low annual temperature likely prevents the Holarctic amphipod *Gammarus lacustris* from invading Lake Baikal. ---- *Scientific Reports* 11: 10532. <https://doi.org/10.1038/s41598-021-89581-x> (The

common wintertemperature at the moment seems too cold for *G. lacustris*, but how will it be if the climate changes induce warmer temperatures?)

Verheye, M. L. & C. d'Udekem d'Acoz 2020. Integrative taxonomy of the giant crested *Eusirus* in the Southern Ocean, including the description of a new species (Crustacea: Amphipoda: Eusiridae). ---- *Zoological Journal of the Linnean Society*, in press. <https://doi.org/10.1093/zoolinnean/zlaa141> (Deals primarily with *E. perdentatus* and *P. pontomedon* n. sp. (Bransfield Strait, Antarctic), both extensively described and illustrated. The whole group is further discussed.)

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sensitive freshwater benthic invertebrates using refined testing methods. ---- *Environmental Toxicology and Chemistry* 39, 2256-2268. <https://doi.org/10.1002/etc.4841>. (*Hyaella azteca*)

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Yanrong, W., C. Zhu, Z. Sha & X. Ren 2021. *Liuomelita mollipalma*, a new genus and species of Melitidae (Amphipoda: Hadzioidea) from hydrothermal vents of the Okinawa Trough, North-West Pacific. ---- *Journal of Natural History* 55, 1299-1310. <https://doi.org/10.1080/00222933.2021.1947535>. (*Liuomelita mollipalma* n. gen., n. sp. from the Okinawa Trough (27°47'N, 126°54'E, 997m).)

Yin, J., M. Zhao, Z. Zhang, Y. Fu, Y. Liu, X. Liu, J. Xu, Z. Gui, S. Tang & T. Zhang 2021. The complete mitogenome of freshwater gammarid *Grandidierella taihuensis* (Crustacea: Amphipoda). ---- *Mitochondrial DNA part B* 6, 1369-1371. <https://doi.org/10.1080/23892359.2021.1910079>.

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Zepon, T., L. P. A. Resende, A. A. P. Bueno & M. E. Bichette 2021. New records of the troglobitic *Hyaella veredae* Cardoso & Bueno, 2014 (Crustacea; Amphipoda; Hyaellidae) from Minas Gerais caves, Southeast Brazil, with notes on its natural history. ---- *Check List 17*, 115-123. <https://doi.org/10.15560/17.1.115>.

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Zhang, D., Y. Zhou, J. Yang, T. Linley, R. Zhang, B. Lu, P. Xu, C. Shen, S. Lin, Y. Wang, D. Sun, X. Wang & C. Wang 2021. Megafaunal community structure from the abyssal to hadal zone in the Yap Trench. ---- *Frontiers in Marine Science 8*: 617820. <https://doi.org/10.3389/fmars.2021.617820>

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Zhu, L., D. Geng, B. Pan, W. Li, S. Jiang & Q. Xu. 2021. Trace elemental analysis of the exoskeleton, leg muscle and gut of three hadal amphipods. ---- *Biological Trace Element Research*. <https://doi.org/10.1007/s12011-021-02728-9> (*Alicella gigantea*, *Hirondellea gigas* and *Scopelocheirus schellenbergi* are target-species in this study)

Zoric, K., A. Atanackovic, J. Tomovic, B. Vasiljevic, B. Tubic & M. Paunovic. 2020. Diversity of alien macroinvertebrate species in Serbian waters. ---- *Water 12*: 3521. <https://doi.org/10.3390/w12123521>

## Compilation of Amphipod relevant literature

Please tell the AN editors and Olli Coleman about your recent publications on amphipods - and send a pdf of your paper. Olli can include it on the server and the editors can include it in the bibliography....



# NEW TAXA

## GENERA

<b>Carinocleonardopsis</b> Kodama & Kawamura, 2021	Cleonardopsinae
<b>Carpentaria</b> Lowry, Springthorpe & Myers, 2020	Protorchestiidae
<b>Gammaroidorum</b> Jarzembowski, Chény, Fang & Wang, 2020	Gammaroidea incertae sedis
<b>Hendrycksopleustes</b> Labay, 2021	Pleustidae
<b>Liuomelita</b> Yanrong, Zhu, Sha & Ren, 2021	Melitidae
<b>Palaearcticarellus</b> Palatov & Marin, 2020	Crangonyctidae
<b>Panamapisa</b> Alves, Lowry, Neves & Johnsson, 2021	Eriopisidae
<b>Paraliropus</b> Guerra-Garcia & Ahyong, 2021	Caprellidae
<b>Pictonorchestia</b> Lowry & Springthorpe, 2021	Talitridae
<b>Pleojassa</b> Conlan, 2021	Ischyroceridae
<b>Plumulojassa</b> Conlan, 2021	Ischyroceridae
<b>Pontonyx</b> Palatov & Marin (in Marin & Palatov, 2021)	Crangonyctidae
<b>Pseudoliropus</b> Guerra-Garcia & Ahyong, 2020	Caprellidae
<b>Volgonyx</b> Marin & Palatov, 2021	Crangonyctidae
<b>Yamatorchestia</b> Takahashi & Morino (in Takahashi et al., 2021)	Talitridae

## SPECIES

<b>acalceolus</b> Tomikawa & Kimura, 2021 ( <i>Jesogammarus</i> )	Anisogammaridae
<b>agripeta</b> Hauke, Peart & Ryan, 2021 ( <i>Leucothoe</i> )	Leucothoidae
<b>alanicus</b> Marin & Palatov, 2021 ( <i>Niphargus</i> )	Niphargidae
<b>amadoi</b> Senna, Guedes, Andrade & Pereira-Filho, 2021 ( <i>Pariphinotus</i> )	Phliantidae
<b>amirani</b> Marin, 2020 ( <i>Niphargus</i> )	Niphargidae
<b>angulata</b> Ariyama, Kodama & Tomikawa, 2021 ( <i>Quadrimaera</i> )	Maeridae
<b>arolaensis</b> Alther, Bongni, Borko, Fiser & Altermatt, 2021 ( <i>Niphargus</i> )	Niphargidae
<b>asheensis</b> Palatov & Marin (in Marin & Palatov, 2021) ( <i>Lyurella</i> )	Crangonyctidae
ssp <b>asiaticus</b> Labay, 2021 ( <i>Neopleustes pulchellus</i> )	Pleustidae

<b>atacamensis</b> Weston & Espinosa-Leal (in Weston et al. 2021) ( <i>Eurythenes</i> )	Eurytheneidae
<b>australiensis</b> Guerra-Garcia & Ahyong, 2020 ( <i>Pseudoprotella</i> )	Caprellidae
<b>bakeri</b> Gibson & Hutchin (in Gibson et al., 2021) ( <i>Stygobromus</i> )	Crangonyctidae
<b>bzhidik</b> Marin, Krylenko & Palatov, 2021 ( <i>Niphargus</i> )	Niphargidae
<b>cavernicola</b> Shimomura & Fujita, 2021 ( <i>Seborgia</i> )	Seborgiidae
<b>claudei</b> Jazdzewska (in Jazdzewska et al, 2021) ( <i>Oedicerina</i> )	Oedicerotidae
<b>colei</b> Walters, Cannizzaro & Berg (in Cannizzaro et al. 2020) ( <i>Gammarus</i> )	Gammaridae
<b>concavus</b> Jung, Kim, Kim & Yoon, 2020 ( <i>Pseudocrangonyx</i> )	Pseudocrangonyctidae
<b>crassus</b> Jung, Kim, Kim & Yoon, 2020 ( <i>Pseudocrangonyx</i> )	Pseudocrangonyctidae
<b>denticoxa</b> Ariyama, Kodama & Tomikawa, 2021 ( <i>Maera</i> )	Maeridae
<b>deureunensis</b> Lee & Min, 2021 ( <i>Pseudocrangonyx</i> )	Pseudocrangonyctidae
<b>euacanthus</b> (G. O. Sars, 1885) rev. Labay 2021 ( <i>Neopleustes</i> )	Pleustidae
<b>fanagorica</b> Palatov & Marin (in Marin & Palatov 2021) ( <i>Lyurella</i> )	Crangonyctidae
<b>fontinalis</b> Marin & Palatov, 2021 ( <i>Lyurella</i> )	Crangonyctidae
<b>furotai</b> Ogawa, in Ogawa, Takada & Sakuma, 2021 ( <i>Haustorioides</i> )	Dogielinotidae
<b>gabrieli</b> Siqueira & Iwasa-Arai, in Iwasa-Arai et al. 2021 ( <i>Elasmopus</i> )	Maeridae
<b>gracilipes</b> Jung, Kim, Kim & Yoon, 2020 ( <i>Pseudocrangonyx</i> )	Pseudocrangonyctidae
<b>guaymii</b> Alves, Lowry, Neves & Johnsson, 2021 ( <i>Panamapisa</i> )	Eriopisidae
<b>hegmatanensis</b> Esmaeili-Rineh & Mirghaffari, 2021 ( <i>Niphargus</i> )	Niphargidae
<b>henrici</b> Jazdzewska (in Jazdzewska et al, 2021) ( <i>Oedicerina</i> )	Oedicerotidae
<b>hwanseonensis</b> Lee & Min, 2021 ( <i>Pseudocrangonyx</i> )	Pseudocrangonyctidae
<b>inkenae</b> Lörz & Horton, 2021 ( <i>Amathillopsis</i> )	Amathillopsidae
<b>isaki</b> Johansen & Vader, 2020 ( <i>Nicippe</i> )	Pardaliscidae
<b>keablei</b> Guerra-Garcia & Ahyong, 2020 ( <i>Pseudoliropus</i> )	Caprellidae
<b>kimi</b> Conlan, Desiderato & Beermann, 2021 ( <i>Jassa</i> )	Ischyroceridae
<b>koropokkuru</b> Sidorov, 2020 ( <i>Paramoera</i> )	Pontogeneiidae
<b>kwangcheonseonensis</b> Lee & Min, 2021 ( <i>Pseudocrangonyx</i> )	Pseudocrangonyctidae
<b>lagoana</b> Talhaferro & Bueno (in Talhaferro et al., 2021) ( <i>Hyaella</i> )	Hyaellidae
<b>langi</b> Walters, Cannizzaro & Berg (in Walters et al. 2020) ( <i>Gammarus</i> )	Gammaridae
<b>lauriae</b> Conlan, Desiderato & Beermann, 2021 ( <i>Jassa</i> )	Ischyroceridae
<b>lesci</b> Jazdzewska (in Jazdzewska et al, 2021) ( <i>Oedicerina</i> )	Oedicerotidae
<b>liuruiyui</b> Zheng, Hou & Li, 2020 ( <i>Gammarus</i> )	Gammaridae
<b>lowryi</b> Conlan, 2021 ( <i>Pleojassa</i> )	Ischyroceridae

<b>lucai</b> Siqueira & Iwasa-Arai (in Iwasa-Arai et al. 2021) ( <i>Eusiroides</i> )	Pontogeneiidae
<b>lutruwita</b> Hughes & Lindsay, 2021 ( <i>Bellorchestia</i> )	Talitridae
<b>malpaisensis</b> Walters, Cannizzaro & Berg (in Cannizzaro et al. 2020) ( <i>Gammarus</i> )	Gammaridae
<b>marianaensis</b> Tomikawa & Watanabe (in Tomikawa et al., 2021) ( <i>Princaxelia</i> )	Pardaliscidae
<b>mazestiensis</b> Marin & Palatov, 2021 ( <i>Echinogammarus</i> )	Gammaridae
<b>mendozai</b> Winfield, Herrera-Dorantes & Ardisson, 2021 ( <i>Jassa</i> )	Ischyroceridae
<b>mikhailovi</b> Marin & Palatov, 2021 ( <i>Lyurella</i> )	Crangonyctidae
<b>minuana</b> Talhaferro & Bueno (in Talhaferro et al., 2021) ( <i>Hyaella</i> )	Hyaellidae
<b>minutus</b> Jung, Kim, Kim & Yoon, 2020 ( <i>Pseudocrangonyx</i> )	Pseudocrangonyctidae
<b>mkomani</b> Bichang'a & Hou (in Bichang'a et al. 2021) ( <i>Floresorchestia</i> )	Talitridae
<b>mollipalma</b> Yanrong, Zhu, Sha & Ren ( <i>Liuomelita</i> )	Melitidae
<b>monodi</b> Hadjab, Ayati & Piscart, 2021 ( <i>Echinogammarus</i> )	Gammaridae
<b>moorei</b> Conlan, 2021 ( <i>Pleojassa</i> )	Ischyroceridae
<b>multidentata</b> Conlan, 2021 ( <i>Pleojassa</i> )	Ischyroceridae
<b>nasrullahi</b> Bargrizaneh, Fiser & Esmaeili-Rineh, 2021 ( <i>Niphargus</i> )	Niphargidae
<b>needwonnee</b> Hughes & Lindsay, 2021 ( <i>Bellorchestia</i> )	Talitridae
<b>neimanii</b> Labay, 2021 ( <i>Hendrycksopleustes</i> )	Pleustidae
<b>nojimaensis</b> Takeuchi, Shiraishi & Mimori, 2021 ( <i>Caprella</i> )	Caprellidae
<b>orientalis</b> Conlan, 2021 ( <i>Pleojassa</i> )	Ischyroceridae
<b>othmani</b> Azman, 2021 ( <i>Nuuanu</i> )	Nuuanuidae
ssp <b>pacifica</b> Labay, 2021 ( <i>Neopleustes boeckii</i> )	Pleustidae
<b>palawakani</b> Hughes & Lindsay, 2021 ( <i>Bellorchestia</i> )	Talitridae
<b>parvimana</b> Heo & Kim, 2021 ( <i>Opisa</i> )	Opisidae
<b>percalacustris</b> Walters, Cannizzaro & Berg (in Cannizzaro et al. 2020) ( <i>Gammarus</i> )	Gammaridae
<b>pontomedon</b> Verheye & d'Udekem d'Acoz, 2020 ( <i>Eusirus</i> )	Eusiridae
<b>pseudoincerta</b> Winfield & Guerra-Garcia, 2021 ( <i>Deutella</i> )	Caprellidae
<b>reliquia</b> Hughes & Lindsay, 2021 ( <i>Bellorchestia</i> )	Talitridae
<b>ryukyuensis</b> Ariyama, 2021 ( <i>Mucrocalliope</i> )	Paracalliopiidae
<b>sambaqui</b> Talhaferro & Bueno, in Talhaferro et al., 2021 ( <i>Hyaella</i> )	Hyaellidae
<b>sapozhnikovii</b> Palatov & Marin, 2020 ( <i>Paelearticarellus</i> )	Crangonyctidae
<b>seisuiiae</b> Kodama & Kawamura, 2021 ( <i>Carinocleonardopsis</i> )	Cleonardopsinae
<b>smirnovii</b> Palatov & Marin, 2020 ( <i>Paelearticarellus</i> )	Crangonyctidae
<b>stasiuki</b> Jazdzewski, Mamos & Grabowski (in Mamos et al. 2021) ( <i>Gammarus</i> )	Gammaridae

<b>teresae</b> Jazdzewska (in Jazdzewska et al, 2021) ( <i>Oedicerina</i> )	Oedicerotidae
<b>thaix</b> Siqueira & Iwasa-Arai (in Iwasa-Arai et al. 2021) ( <i>Ampithoe</i> )	Ampithoidae
<b>tropicalis</b> Lowry, Springthorpe & Myers, 2020 ( <i>Carpentaria</i> )	Protorcheștiidae
<b>tumultus</b> Hauke, Peart & Ryan, 2020 ( <i>Leucothoe</i> )	Leucothoidae
<b>villosus</b> Jung, Kim, Kim & Yoon, 2020 ( <i>Pseudocrangonyx</i> )	Pseudocrangonyctidae
<b>vonki</b> Jarzembowski, Chény, Fang & Wang, 2020 ( <i>Gammaroidorum</i> )	Gammaroidea incertae sedis
<b>wonkimi</b> Lee, Tomikawa & Min, 2020 ( <i>Pseudocrangonyx</i> )	Pseudocrangonyctidae
<b>yasujensis</b> Bargrizaneh, Fiser & Esmaili-Rineh, 2021 ( <i>Niphargus</i> )	Niphargidae
<b>yooling</b> Wei, Dong, Huang, Du, Hegna, Lian & Audo, 2021 ( <i>Gammaroidorum</i> )	Gammaroidea incertae sedis

## Taxonomic overview

### Amathillopsidae

Amathillopsis **inkenae**

### Ampeliscidae

Ampelisca **brachycladus**

### Ampithoidae

Ampithoe **thaix**

### Anisogammaridae

Jesogammarus **acalceolus**

### Caprellidae

Caprella **nojimaensis**

Deutella **pseudoincerta**

**Paraliropus**

**Pseudoliropus keablei**

Pseudoprotella **australiensis**

## Cleonardopsinae

**Carinocleonardopsis seisiae**

## Crangonyctidae

**Lyurella asheensis, fanagorica, fontinalis, mikhailovi**

**Palaearcticarellus sapozhnikovi, smirnovi**

**Pontonyx**

**Stygobromus bakeri**

**Volgonyx**

## Dogielinotidae

**Haustorioides furotai**

## Eriopisidae

**Panamapisa guaymii**

## Eurytheneidae

**Eurythenes atacamensis**

## Eusiridae

**Eusirus pontomedon**

## Gammaridae

**Echinogammarus mazestiensis, monodi**

**Gammarus colei, langi, liuruiyui, malpaisensis, percalacustris, stasiuki**

## Hyalellidae

**Hyalella lagoana, minuana, sambaqui**

## Ischyroceridae

**Jassa kimi, lauriae, mendozai**

**Pleojassa lowryi, moorei, orientalis**

**Plumulojassa**

## Leucothoidae

Leucothoe **agripeta, tumultus**

## Maeridae

Elasmopus **gabrieli**

Maera **denticoxa**

Quadrimaera **angulata**

## Melitidae

**Liuomelita mollipalma**

## Niphargidae

Niphargus **alanicus, amirani, arolaensis, bzhidik, hegmatanensis, nasrullahi, yasujensis**

## Nuuanuidae

Nuuanu **othmani**

## Oedicerotidae

Oedicerina **claudei, henrici, lesci, teresae**

## Opisidae

Opisa **parvimana**

## Paracalliopiidae

Mucrocalliope **ryukyuensis**

## Pardaliscidae

Nicippe **isaki**

Princaxelia **marianaensis**

## Phliantidae

*Pariphinotus amadoi*

## Pleustidae

*Hendrycksopleustes neimani*

*Neopleustes boeckii pacificus*, *pulchellus asiaticus*

## Pontogeneiidae

*Eusiroides lucai*

*Paramoera koropokkuru*

## Protorcheistiidae

*Carpentaria tropicalis*

## Pseudocrangonyctidae

*Pseudocrangonyx concavus*, *crassus*, *deureunensis*, *gracilipes*, *hwangseonensis*,  
*kwangcheonseonensis*, *minutus*, *villosus*, *wonkimi*

## Seborgiidae

*Seborgia cavernicola*

## Talitridae

*Bellorchestia lutruwita*, *needwonnee*, *palawakani*, *reliquia*

*Floresorchestia mkomani*

*Pictonorchestia*

*Yamatorchestia*

## Incertae sedis

*Gammaroidorum vonki*, *yooling*

## Updates on the 19th ICA

Following the meeting of the Tunisian organisation committee, the date of the next ICA will be in November 2022. It will held in Djerba Island and a web site of the colloquium is under construction.

All the best  
*Faouzia Charfi*



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## Amphipod Newsletter - Quo Vadis?

The editors are thinking hard about how to develop Amphipod Newsletter. Several questions about the bibliography have been raised (see the discussion from Wim on page 3), especially “does anyone use the bibliography?” and “should we include non-taxonomic works in the bibliography?”. We would also be grateful for your insights into where we should develop the newsletter. Should we include more about people, collections, excursions - and in that case - how will you help us get this knowledge so we can bring it on?

We need you - the readers - to help us forward. Please fill out our questionnaire - this should take less than 5 minutes of your time, and will help us a lot. The answers are anonymous, and we will not use this in any other way than to improve the newsletter. Our hope is that we can use the results of the questionnaire as a basis to discuss the development of the newsletter at the ICA 19.

<https://www.surveymonkey.com/r/92RLFJC>

*the editors*



## Amphipod workshop in connection with ICC



Exciting things happening in the crustacean world in Wellington in 2023

The week-long ICC10 congress will be held 22-26<sup>th</sup> May, 2023 in Wellington, Aotearoa, NZ.

There is bonus added content for the amphipod and amphipod curious community.

Following the ICC10 there will be a 3-4 day amphipod and bioinformatics workshop (exact details will be announced later).

This workshop will be held in Wellington aimed at bringing together established researchers with those earlier in their career to pass on the secret ways of the amphipod and will include

- access to the amphipod collections from the NIWA Invertebrate and Te Papa collections (8000 registered samples (majority of which are not identified past family level), plus many unregistered lots. The majority of the samples are from the deep sea, but also range all the way to the freshwater.
- seminars on current amphipod biology and research, bioinformatics
- and maybe a small field trip or 2 (marine and freshwater)
- an amazing opportunity to sample amphipods, coffee, craft beer and wine, and the amazing Aotearoa environment

“Situated at the southern end of the North Island, Wellington, New Zealand, was recently named "the coolest little capital in the world" by Lonely Planet. Surrounded by nature and fuelled by creative energy, Wellington is a compact city with a powerful mix of culture, history, nature and cuisine. Fuel your visit with strong coffee and world-class craft beer – Wellingtonians are masters of casual dining, with plenty of great restaurants, night markets and food trucks.”

*Kia mauri tau, kia ngākau māhaki, kia ora*

*Be calm, be kind, be well*



## The Old Photo

During his presentation at the 18th ICA in Dijon August 2019, José Guerra-García showed several old photos from the early amphipod meetings. José has shared these photos with the AN, and we plan to share them here, to make sure everybody have the possibility to enjoy these photographic gems. Thank you to José for collecting these pictures, and for making them available to everybody.

We have tried to annotate the photos, but many names are missing or even uncertain. If anybody who are in the pictures (or who recognises people not named or wrongly named in the annotated photos) could help us with names of the participants, we will be very happy for the help. Please email the editors - we promise to share the updated annotations!



The original (without annotations)

### How do you get in touch with the Amphipod Newsletter?

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1975

Schlitz

John Holsinger

Annemarie

Goedmakers

Costa

Andriey Skalsky

Kurt

Schminke

Karaman

Gordan Boris Sket

Wim Vader

Ginet

Don Steele

Claude de Bruyeres

Jean Reygrobelet

Ed Boisfield

Roux

Meertinus Meyering

Meyering

Bulnheim

Nicole

Coineau (?)

Krzysztof

Jazdzewski

Sjouk Pinkster

Traudi

Krapp-Schickel

Sjouk Pinkster