IN MEMORIAM

ANGELO LIBERTINI
(1957-2010)

In the last years of the past century a letter arrived on the desk of Professor Sandro Ruffo at the Civic Science Museum of Verona. In it a young scientist, based at the Institute of Marine Biology in Venice, presented himself and asked for contact. He described his previous karyological studies in quite different animal groups, among them harpacticoid crustaceans, and exposed his interest in the group of amphipods, which he would like to discuss with this world authority. — At that date Sandro was a long time retired, but he retained during all his long life his enthusiasm for everything new. In his answer he invited the young man to visit him in "his" museum at Verona, but asked to wait for the due next visit by Traudl Krapp from Germany, in order to include her in this new field of study. — Angelo arrived and immediately established a lively contact with Sandro as well as with Traudl. Soon afterwards Traudl Krapp, her husband and their youngest son (both also zoologists) visited the CNR Institute of Marine Biology, situated close to the venue of the Venice Film Biennale, at the sea side of Venice lagoon and consisting of an ensemble of ex-residence villas and new buildings, and planned their future collaboration. — The foundations of a deep friendship were soon established, which were further strengthened by common excursions with Caterina, Angelo's dynamic wife.

Born in 1957, Angelo attended the Scientific Lyceum (high school) in Padova (Italy), graduated "*summa cum laude*" in Biological Sciences at the University in Padova in 1982 (with a thesis on freshwater bivalve cytotaxonomy) and acquired in 1988 an Italian PhD in Evolutionary Biology (cytotaxonomy of harpacticoid copepods).

Until 1988 he worked at the Genetics Laboratory of the Department of Biology, University of Padova, then at the CNR Institute of Marine Biology, Venice, Italy, presently called CNR Institute of Marine Sciences (ISMAR).

He visited in 1989-90 the Italian South Polar Base at Terra Nova Bay, Ross Sea; in 1992 different laboratories in Kyoto, Utsunomiya, Nansei and Nikko branchs, Japan; in 1998 the National Center for Mariculture, Oceanografic and Limnological Research in Eilat, Israel; in 2000, 2003 and 2004 the Institute of Marine Biology of Crete, Heraklion, Greece; in 2002 the University of South California, Los Angeles; in 2004 and 2005 the Sandgerdi Marine Centre, Iceland and finally in 2008 the Marine Biology Lab. of the University of Seville, Spain.

He published more than 100 papers in refereed journals and books.

He has carried out researches on:

1) classical and molecular cytogenetics of marine and freshwater organisms (fish, crustaceans, molluscs) in order to acquire basic knowledge on karyotype morphology, chromosome location of repetitive gene clusters (rDNAs, telomeric sequences) and genome size;

2) reproduction and applied cytogenetics in the aquaculture of fish and molluscs to induce chromosome set manipulation;

3) identification of molecular markers useful for breeders' selection in aquaculture and for recognition of species, populations and particular strains either in natural or reared stocks;

4) the use of some karyological and biometrical parameters as stress biomarkers in environmental studies;

5) population dynamics in copepods and amphipods.

Publications dealing with amphipods:

[1] Krapp T., Lang C., Libertini A. & Melzer R. R. 2006. *Caprella scaura* Templeton 1836 *sensu lato* (Amphipoda: Caprellidae) in the Mediterranean. *Organisms, Diversity and Evolution*, 8: 337-345.

[2] Libertini, A., Trisolini R. & Rampin M. 2008. Chromosome number, karyotype morphology, heterochromatin distribution and nuclear DNA content of some talitroidean amphipods (Crustacea: Gammaridea). *European Journal of Entomology*, 105: 53-58.

[3] Krapp, T., Libertini, A. & Rampin M. 2008. A cytogenetical study of Ischyroceridae (Amphipoda) allows the identification of a new species, *Jassa cadetta* sp. n., in the Lagoon of Venice. *Organisms, Diversity and Evolution,* 8: 337-345.
[4] Libertini, A. & Rampin M. 2009: A molecular cytogenetic study on some Icelandic Amphipods (Crustacea) by fluorescence *in situ* hybridization (FISH). *The Open Zoology Journal,* 8: 109-116.

Scientific dedication to him:

Libertinia n. gen. Iannilli, V., Krapp-Schickel, T. and Ruffo, S. (in press), with *Libertinia latibasis* n.sp. and *Libertinia longitelson* n. sp.

Etymology: In honour of Angelo Libertini (Venezia), who plays a different instrument in amphipod research applying karyological characters.

All too early Angelo was torn out of his dense net of scheduled projects, as he got to know the news of his cancer. But in all these months of surgical interventions and chemical treatments he never lost his hope to proceed with his research plans and publish their results. Caterina even reported that only a few days before his death Angelo spoke lively about new ideas for future work.

Angelo was ever friendly, even cheerful, always ready to help and impressively quick in his thoughts and gestures. He found an entirely new road to investigate the taxonomy and life history of Amphipoda; hopefully, younger colleagues may take over his ideas and so enlarge our knowledge.

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