

Editorial Note

Tribute to Francesca Gherardi, scientist and editor

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Francesca Gherardi, Associate Professor at the Department of Biology of the University of Florence, was a brilliant Italian zoologist and ethologist, and one of the most well-known and active experts on alien aquatic species. Since her masters degree in Biology (1979) and her PhD in Animal Biology (Ethology) (1987), both obtained at the University of Florence, Francesca studied the behaviour and ecology of aquatic animals. Initially, most of her research concerned social recognition in crustaceans: she was particularly renowned for her studies on hermit crabs and crayfish, her principal model organisms.

Then, from the 1990's onwards she worked in the field of invasion biology, her main interest until her death. Francesca devoted herself with enthusiasm and energy, not only to the problem of the invasive red swamp crayfish *Procambarus clarkii*, by revealing several aspects of its behavioral ecology, and by developing with her collaborators different methods for its control, but she gradually became an international expert on crayfish and more generally on aquatic alien species. In all aspects of her life, she was constantly driven by a continuous curiosity, thirst for knowledge and a will to face challenges; this was expressed by exploring and frequently opening new research fields. And she transmitted her drive and passion to the many students she supervised. One of the last papers with her contribution is published in this issue of *Aquatic Invasions* by Vera Gonçalves, her Portuguese PhD student working on the interaction between *Procambarus clarkii* and the zebra mussel *Dreissena polymorpha*, an issue of recent increasing interest in Francesca's team.



Francesca Gherardi

Florence, Italy, 12 November 1955–14 February 2013

(Photograph by Stephanie Peay)

For her studies, she was designated as “Distinguished Astacology 2010” of the I.A.A. (International Association of Astacology), where she occupied the most important positions. She was also a member of the IUCN Invasive Species Specialist Group (ISSG) (2002–2013) and of the

IUCN Freshwater Crab and Crayfish Specialist Group (2009–2013). She served as reviewer for 107 international journals, and editor of 11 journals: Francesca was a valued member of the Editorial Board of *Aquatic Invasions* for seven years, working with her usual enthusiasm and competence. She was involved, nearly always as coordinator, in 20 local projects, 7 national projects and 17 international projects, mostly on alien species. Her research led to an impressive number of publications (220 peer reviewed articles, 216 conference contributions, 30 book chapters).

She also edited two relevant books, the first on freshwater alien crayfish “Crayfish in Europe as alien species” (Balkema) and the second on invasion biology “Biological invaders in inland waters” (Springer), this last a “milestone” for invasion biologists. In this book she presented a useful situational synthesis for studies of alien species in inland waters, gathering the most important experts in this field. The book was the output of the international conference INWAT (Biological Invasions in Inland Waters), organised by Francesca and her team in 2005 in Florence and considered a fundamental meeting for scientists and stakeholders. Francesca strongly believed that collaboration between science and society was crucial for the management of alien species. With this purpose,

she promoted several workshops and conferences, including the international conference MALIAF (Managing Alien Species for Sustainable Development of Aquaculture and Fisheries), in Florence in 2008, aimed at presenting the results of the European project IMPASSE (Environmental Impacts of Alien Species in Aquaculture) to the stakeholders.

During her career, she developed a wide network of international and national collaborations, especially for the alien species issue. To develop a more exhaustive view of this problem, she liked using a multidisciplinary approach, collaborating with botanists, modeling experts, economists, and several zoologists. She leaves behind a large body of work, and a sustainable reference point for the problem of invasive aquatic species in Italy as well as in Europe.

This sunny, special and full-of-life woman and scientist courageously fought against her illness, working until her death: she will be sadly missed by her family (her brother Ugo, sister Simonetta and partner Roberto), friends and colleagues.

Elena Tricarico,
Associate Editor