Preface: Insights and advances in Iberian ichthyology

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Received: 16 January 2022 / Revised: 16 January 2022 / Accepted: 21 January 2022 / Published online: 15 February 2022
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Keywords Fish biology · Iberian fish · Ichthyofauna

The Iberian ichthyofauna involves a total of 901 species including 4 jawless, 102 cartilaginous, and 795 bony fish species across freshwater, estuaries and seas (Fauna Ibérica project; <http://www.fauna-iberica.mncn.csic.es/english/faunaib/>). The baseline of the Iberian ichthyology was due to the endeavor of Félix António de Brito Capello (1828–1879), José Vicente

Barbosa du Bocage (1823–1907), José Cornide (1734–1803), and Franz Steindachner (1834–1919) (Jordan, 1902; Doadrio, 2001; Lobón-Cerviá, 2001). These ichthyologists inspired others, such as Luis Lozano Rey (1878–1958) and Fernando de Buen y Lozano (1895–1962), to pursue research advances about Iberian ichthyology during its early stage of knowledge on this matter. However, it was not until the 1980s that a greater depth and progress in ichthyology was achieved thanks to the emergence of new generations of ichthyologists, who are currently leading the Iberian research groups dedicated to advances in research in different branches of fish biology (Doadrio, 2001; Lobón-Cerviá, 2001). Today, ichthyology has an undisputed interest among Iberian researchers devoted to exploring all aspects of fish biology, fisheries and management from riverine to estuarine and marine biomes. This great interest in ichthyology drove the creation of the Iberian Society of Ichthyology (SIBIC) in 2010.

Although the SIBIC was created in 2010, several Iberian congresses on Ichthyology had already been held years before. Thus, the first Iberian Congress of Ichthyology was carried out in 1981, and there were two more congresses (1983 and 1991). In July of 2012, the SIBIC hosted the IV Iberian Congress of Ichthyology (Girona, Spain) and every two years since that meeting, the “SIBIC family” has convened to share research on fish biology and conservation. The current Themed Section is exclusively devoted to research on ichthyology and includes a selection

Handling editor: Sidinei M. Thomaz

Guest editors: Javier Sánchez-Hernández & Rufino Vieira-Lanero / Insights and Advances in Iberian Ichthyology

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of papers presented during the VIII Iberian Congress of Ichthyology, held from 15 to 19 July 2020 in Santiago de Compostela (Spain). Because of the COVID-19 pandemic, all the scientific content of VIII Iberian Congress of Ichthyology was transmitted online. The VIII Iberian Congress of Ichthyology focused on multiple disciplines and brought together circa 120 scientists and managers mostly from Iberian countries but some from other countries.

The scientific program was composed by three plenary sessions (Pao Fernández Garrido, Pedro Morais, and Luis Cardona) and a total of 105 presentations grouped into 7 thematic areas (Table 1). Pao Fernández Garrido (World Fish Migration Foundation—WFMF) gave a talk entitled “Connecting fish, rivers and people: Making a change from local to global” about the main projects (e.g., Dam Removal Europe project) carried out by the WFMF on dam demolition and restoration of longitudinal river connectivity. Pedro Morais (Centre of Marine Sciences—CCMAR) presented an extensive review of the conservation efforts of Iberian fish with special attention on endangered and vulnerable Ichthyofauna “Taking the lead on the conservation efforts of Iberian fish: a challenge to SIBIC.” Luis Cardona (University of Barcelona) gave the last plenary conference entitled “Stable isotopes as habitat tracers in fish ecology” and presented exciting insights into the potential use of stable isotopes as habitat tracers to enhance our understanding in fish ecology. The last day included two workshops about alien species within the actions of the project Life Invasaqua and ended with the ordinary general

assembly of the SIBIC. The winner of the award “Premio de la Cátedra Luís de Camões” for the best student presentation was Cármen Sousa for her talk entitled “Evolution of the immune system in two antarctic notothenioids.”

Some notable results of the VIII Iberian Congress of Ichthyology are presented in this Themed Section with two guest editors, Javier Sánchez-Hernández and Rufino Vieira-Lanero, who managed the peer review process. This Themed Section covers various aspects of marine and freshwater fish biology that were presented at this congress such as fish migration (García-Vega et al., 2021), conservation status (Miqueleiz et al., 2021), swimming performance (Sánchez-González et al., 2021) and population structure (Schroeder et al., 2021). It should be noted that this Themed section presents papers of the meeting, and that although most papers covered the Iberian Peninsula (García-Vega et al., 2021; Miqueleiz et al., 2021; Sánchez-González et al., 2021), there is one focused on Brazilian fishery grounds (Schroeder et al., 2021).

We thank the many anonymous reviewers for their time and expertise per-reviewing the submitted articles, which improved the quality of the papers. The diverse array of communications presented at the VIII Iberian Congress of Ichthyology furthered our knowledge about Iberian Ichthyology. However, given the increasing impact on anthropogenic disturbance on the Iberian ichthyofauna in addition to the outdated assessments of the Iberian fish species (Doadrio et al., 2011; Maceda-Veiga, 2013; Miqueleiz et al.,

Table 1 Thematic areas of the VIII Iberian Congress of Ichthyology held from 15 to 19 July 2020 in Santiago de Compostela (Spain)

Thematic areas	Talks (<i>n</i>)	Posters (<i>n</i>)	Themed Section	
			Papers (<i>n</i>)	Reference
I. Ecology and biodiversity	13	8	1	García-Vega et al. (2021)
II. Environment and conservation	9	6	2	Miqueleiz et al. (2021); Sánchez-González et al. (2021)
III. Genetics, development, parasitism and ecophysiology	8	12	0	—
IV. Fisheries and aquaculture	5	7	0	—
V. Non-Iberian scope	4	15	1	Schroeder et al. (2021)
VI. Invasive alien marine species	5	5	0	—
VII. Projects	2	6	0	—

n = number of talks/posters/papers

2021), more attention needs to be paid in the future to fish management and conservation efforts, in order to successfully cope with biodiversity and habitat loss.

Author contributions JSH led the writing. All authors read and approved the final manuscript.

Funding No funds, grants, or other support was received.

Availability of data and material Not applicable.

Declarations

Conflict of interest The authors declare no conflicts of interest.

Ethical approval Not applicable.

Consent to participate Not applicable.

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