Rev. Mus. Argentino Cienc. Nat., n.s.
27(1): 1–17, 2025
ISSN 1514-5158 (impresa)
ISSN 1853-0400 (en línea)

A century of echinoderm research in Argentina: Irene Bernasconi's lasting legacy from 1925, with notes on type material and publication chronology

Mariano I. MARTINEZ [1], Ariana B. ALARCÓN SAAVEDRA [2], Lorena P. ARRIBAS [2], Florencia DI MARCO [3,4], Lucía EPHERRA [3,5], Jonathan N. FLORES [2], Cintia P. FRAYSSE [6], Damián G. GIL [7,8], Daniela HUENTEN [2], Daniel M. LAURETTA[1], Pablo E. PENCHASZADEH [1], Analía F. PÉREZ [9], Renata M. PERTOSSI [1], Malena PFOH [10], Mariela ROMANELLI [13], Fabrizio SCARABINO [11,12], Alejandro TABLADO [13] & Martín I. BROGGER [2]*

[1] Laboratorio de Ecosistemas Marinos, Museo Argentino de Ciencias Naturales "Bernardino Rivadavia" (MACN-CONICET), Av. Ángel Gallardo 470 (C1405DJR) Ciudad Autónoma de Buenos Aires, Argentina. [2] Laboratorio de Reproducción y Biología Integrativa de Invertebrados Marinos (LARBIM), Instituto de Biología de Organismos Marinos (IBIOMAR), CCT CONICET-CENPAT, Bvd. Brown 2915 (U9120ACD), Puerto Madryn, Chubut, Argentina. [3] Centro para el Estudio de Sistemas Marinos (CESIMAR), CCT CONICET-CENPAT, Bvd. Almte. Brown 2915 (U9120ACD), Puerto Madryn, Chubut, Argentina. [4] Laboratorio de Ecotoxicología en Invertebrados Acuáticos (LEIA), Instituto Patagónico del Mar (IPaM), Universidad Nacional de la Patagonia San Juan Bosco (UNPSJB), Bv. Almte. Brown 3051 (9120), Puerto Madryn, Chubut, Argentina. [5] Instituto Nacional de Investigación y Desarrollo Pesquero (INIDEP), Paseo Victoria Ocampo n◦ 1, Mar del Plata, Buenos Aires, Argentina. [6] Laboratorio de Ecología, Fisiología y Evolución de Organismos Acuáticos, Centro Austral de Investigaciones Científicas (CADIC-CONICET), Ushuaia, Tierra del Fuego AeIAS, Argentina. [7] Laboratorio de Bentos Costero Patagónico. Instituto de Desarrollo Costero (LBCP – IDC). Universidad Nacional de la Patagonia San Juan Bosco (UNPSJB). Ciudad Universitaria, Ruta Provincial 1 s/n (9000), Comodoro Rivadavia, Chubut, Argentina. [8] Departamento de Biología y Ambiente. Facultad de Ciencias Naturales y Ciencias de la Salud. UNPSJB (9000), Comodoro Rivadavia, Chubut, Argentina. [9] Centro de Ciencias Naturales, Ambientales y Antropológicas (CCNAA), Universidad Maimónides, Laboratorio de Invertebrados Marinos, CONICET, Ciudad Autónoma de Buenos Aires, Argentina. [10] Laboratorio de Crustáceos y Ecosistemas Costeros, Centro Austral de Investigaciones Científicas (CADIC-CONICET), Ushuaia, Tierra del Fuego AeIAS, Argentina. [11] Museo Nacional de Historia Natural, C.C. 399 (11.000) Montevideo, Uruguay. [12] Centro Universitario Regional del Este, Sede Rocha, Ruta 9 esq. Ruta 15, Rocha, Uruguay. [13] División Invertebrados, Museo Argentino de Ciencias Naturales "Bernardino Rivadavia" (MACN-CONICET), Av. Ángel Gallardo 470 (C1405DJR) Ciudad Autónoma de Buenos Aires, Argentina. *Email: brogger@cenpat-conicet.gob.ar

Abstract: Irene Bernasconi was a pioneering and internationally recognized echinoderm specialist from Argentina. Her career, which spanned nearly six decades, was marked by significant contributions to the taxonomy of echinoderms, particularly those from the southwestern Atlantic and Antarctic Peninsula. She laid the foundation for the inclusion of women in science in her country. Bernasconi contributed to the description of 25 new taxa (three subspecies, 21 species, one genus). She was based at the *Museo Argentino de Ciencias Naturales "Bernardino Rivadavia"* (MACN), initially in an honorary role and later as a CONICET researcher. This review addresses the status of the species that she described, including nomenclatural updates. Also we compiled her extensive publication record of 68 research articles, highlighting her focus on asteroids (60% of her studies), echinoids (32%), and ophiuroids (26%), with minor contributions to crinoids and holothuroids (3% for both). The first publication by Bernasconi appeared in 1925, and her final work was completed in 1980, reflecting her valuable commitment to echinoderm studies as a cornerstone in the region.

Key words: Echinodermata, *Museo Argentino de Ciencias Naturales "Bernardino Rivadavia"*, Taxonomy, southwestern Atlantic

Resumen: Un siglo de investigación en equinodermos en Argentina: el legado perdurable de Irene Bernasconi desde 1925, con notas sobre material tipo y cronología de publicaciones. Irene Bernasconi fue una especialista pionera y reconocida mundialmente en equinodermos de Argentina. Su carrera, que abarcó casi seis décadas, estuvo marcada por importantes contribuciones a la taxonomía de los equinodermos, principalmente del Atlántico suroccidental y la Península Antártica. De esta manera, sentó las bases para la inclusión de

las mujeres en la ciencia de su país. Bernasconi contribuyó a la descripción de 25 nuevos taxones (tres subespecies, 21 especies, un género). Trabajo en el Museo Argentino de Ciencias Naturales "Bernardino Rivadavia" (MACN), inicialmente como honoraria y más tarde como investigadora del CONICET. Esta revisión aborda el estado de las especies que describió, incluidas actualizaciones nomenclatoriales. Además, recopila su extenso registro de publicaciones, que incluye 68 artículos de investigación. Se destaca su enfoque en asteroideos (60% de sus estudios), equinoideos (32%) y ofiuroideos (26%), con contribuciones menores en crinoideos y holoturoideos (3% en ambos casos). La primera publicación de Bernasconi apareció en 1925, y su trabajo final se completó en 1980, reflejando su valioso compromiso con los estudios de equinodermos como una piedra angular en la región.

Palabras clave: Echinodermata, Museo Argentino de Ciencias Naturales "Bernardino Rivadavia", Taxonomía, Atlántico sudoccidental

INTRODUCTION

Irene María Bernasconi (1896–1989) was the first Argentine specialist, and one of the first in Latin America, to study echinoderms (Fig. 1). She was trained primarily as an educator, earning her degree as a Natural Sciences Teacher in Buenos Aires. Through her dedication and professionalism, she made significant contributions to the field for nearly 60 years starting in the early 20th century (Brogger *et al.,* 2013; Ferraro *et al.,* 2020). She is recognized as a leading authority on all five classes of echinoderms both in Argentina and worldwide, particularly on asteroids, echinoids, and ophiuroids. All her research was carried out at the Argentine Museum of Natural Sciences, *Museo Argentino de Ciencias Naturales "Bernardino Rivadavia"* (MACN), where she was initially appointed as an *ad-honorem* researcher by the Museum Director, Prof. Martín Doello Jurado, in 1925. At that time, the Museum was housed in an old building in downtown Buenos Aires and she shared a laboratory with Prof. Deidamia Giambiagi (carcinologist). When the Museum was relocated to a new building in *Parque Centenario* in 1934, she was assigned her own laboratory in the Invertebrates Division, which was literally surrounded by the collection of echinoderms preserved in a wet environment. In 1962, at the age of 66, she joined the *Consejo Nacional de Investigaciones Científicas y Técnicas* (CONICET) as a researcher, at the MACN Invertebrate Division. However, she retired a few years later (1974) and continued as an *ad-honorem* researcher for a decade after her retirement (Fig. 2) (see Parodiz & Balech, 1992).

She was part of several scientific expeditions, including an Antarctic Summer Expedition. Her research extended across vast geographic areas, ranging from the *Río de la Plata* (36°S, 56°W), Strait of Magellan (53°S, 70°W) and Tierra del Fuego (54°S, 64°W). In addition the pioneer cruise to South Georgia islands (54°S, 35°W) and Antarctica (until Melchior Base 64°19.5'S, 62°58.5'W) (see Ferraro *et al.*, 2020) (Fig. 1). Bernasconi's work remains invaluable for current research on echinoderms. She mentored one disciple and associate researcher, María Marta D'Agostino, another professor like herself, with whom she studied and published researches on brittle stars of the Argentine and Antarctic seas. Thereafter, she mentored three other postgraduate students: Mariana Salvat, Domingo Hernández and Alejandro Tablado.

Throughout her life, she has been honored multiple times; most recently, she was posthumously honored with her inclusion in the Hall of Scientists at the *Casa Rosada* (the government house of Argentina) in 2022. This was during the International Year of Women and Girls in Science. Internationally, she was celebrated through a Google Doodle in the same year. This review examines the current status of the species she described and compiles the complete work of Bernasconi.

MATERIALS AND METHODS

We conducted a thorough review of Bernasconi's published works, including original species descriptions, taxonomic revisions, and collaborative papers. The primary sources were accessed through scientific journals, institutional archives, and her personal notes conserved at the MACN.

Specimen data were obtained from the Invertebrate Collection of the MACN (MACN-In) and one specimen from the Paleoinvertebrate Collection (MACN-pi). In addition, this was complemented with records from other institutions and collections housing holotypes or paratypes described by Bernasconi. These were, the *Instituto Oceanográfico da Universidade de São Paulo* (OIUSP), *Museu de Zoologia da*

Fig. 1. Irene Bernasconi, a pioneer in Argentine echinoderm research, in key moments of her scientific career. **Top image**: Bernasconi working in her laboratory during her early years as a researcher, observing sea star specimens through a microscope. **Bottom left**: The team of four Argentine women scientists departing for Antarctica aboard the *Bahía Aguirre* in 1968. From left to right: Elena Martínez Fontes, María Adela Caría, Carmen Pujals, and Irene Bernasconi. **Bottom right**: Bernasconi during the Antarctic expedition, at Melchior Station. Images: Equipo Pioneras – MACN.

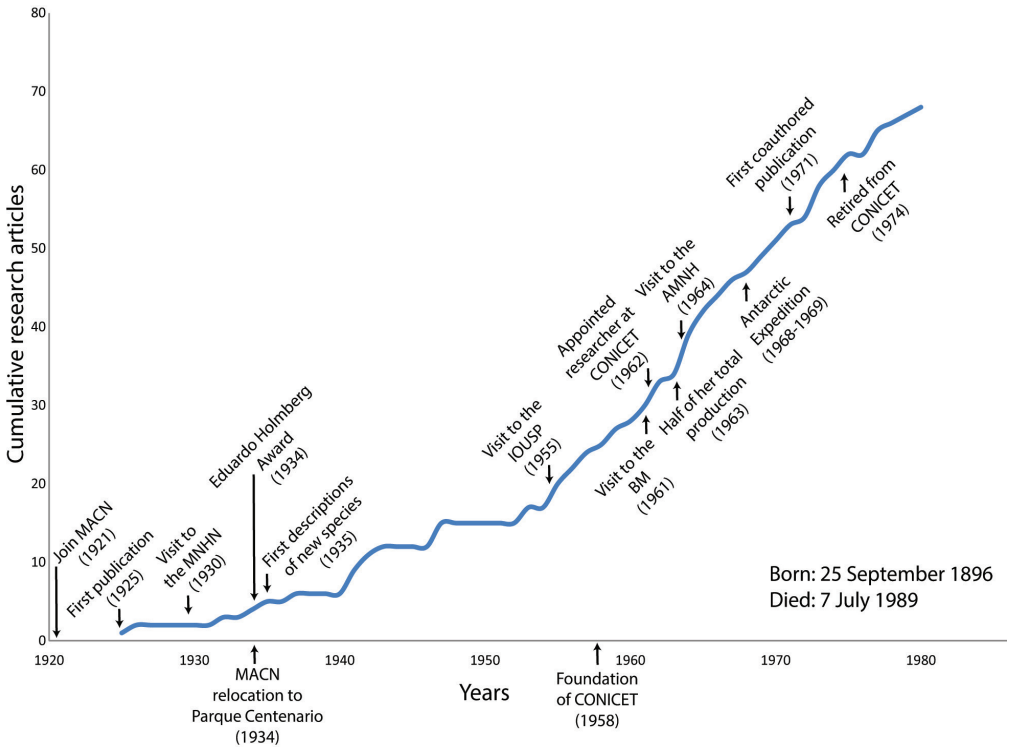

Fig. 2. Timeline of Irene Bernasconi's scientific career, illustrating her cumulative research output and major professional milestones. The graph tracks the number of published research articles from the early 1920s through the 1980s. Her first scientific publication, in 1925, marked the beginning of a career that would span over six decades. Key events highlighted include her first echinoderm descriptions (1935), international visits, the foundation of CONICET (1958), and her participation in the 1968–69 Argentine Antarctic Expedition. Dates of birth and death are provided for context.

Universidade de São Paulo (MZUSP), both from San Pablo, Brazil. From USA, the American Museum of Natural History (AMNH) and the Natural History Museum of Los Angeles County (NHM), and finally, the Iziko South African Museum (SAM).

RESULTS AND DISCUSSION

Taxa authority and current species status

Bernasconi contributed to the description of 25 new taxa, three subspecies, 21 species (20 extant and one fossil) and one genus. Of these species, the MACN houses the type specimens of 16, while seven were deposited in other collections: OIUSP, AMNH, NHM and SAM. In some cases were allocated paratypes at the MACN. One species, including the type of the new genus, have their type at the AMNH, with no specimens available at the MACN. Bernasconi described one genus of sea stars, ten sea stars, four ophiuroids and one echinoid for the first time. Table 1 presents the current taxonomic status, classification, type specimen details, and corresponding references for all these species.

Pteraster marplatensis Bernasconi, 1935

Class: Asteroidea.
Family: Pterasteridae.
Genus: *Pteraster* Müller & Troschel, 1842.
Type species: *Asterias militaris* Müller, 1776 valid as *Pteraster militaris* (Müller, 1776).
Current status
Not valid, synonymized by Clark (1962) and confirmed by Bernasconi (1964b).
Valid name: *Pteraster affinis lebruni* Perrier, 1891.
Type information
Holotype: MACN-In 19491 (with broods).
Museum: MACN.
Type locality: Off Mar del Plata (Buenos Aires province, Argentina), 39° S, 57°25' W, 82–177 m.
Paratype: MACN-In 15768 (cotype, deacces-

Table 1: Species first described by Bernasconi, listed in chronological order. The first column includes the collection acronym, accession number, and specimen designation (holotype [h] or paratype [p], when applicable). Additional columns list: name status (valid [V], not valid original combination [NVC], or not valid [NV]); taxonomic class; species name as originally indicated by Bernasconi; and bibliographic reference.

Catalog	Status	Class	Species	Reference
MACN-In 19491	NV	Asteroidea	*Pteraster marplatensis*	Bernasconi, 1935
MACN-In 17798	NV	Asteroidea	*Pteraster argentinus*	Bernasconi, 1935
MACN-In 16114	V	Asteroidea	*Diplopteraster clarki*	Bernasconi, 1937
MACN-In 24614	V	Asteroidea	*Luidia patriae*	Bernasconi, 1941c
MACN-In 8660	NV	Asteroidea	*Luidia doellojuradoi*	Bernasconi, 1941c
MACN-In 23657	NV	Asteroidea	*Luidia quequenensis*	Bernasconi, 1942a
MACN-In 13762	NV	Echinoidea	*Mellita platensis*	Bernasconi, 1947b
MACN-pi 4522	V	Echinoidea	*Holaster mortenseni*	Bernasconi, 1954
OIUSP 728 (MZUSP) MACN-In 7872 (p)	V	Echinoidea	*Centrostephanus besnardi*	Bernasconi, 1955b
OIUSP 713 (MZUSP)	NV	Asteroidea	*Anthenoides brasiliensis*	Bernasconi, 1956b
OIUSP 712 (MZUSP) MACN 7897 (p)	V	Echinoidea	*Clypeaster subdepressus lobulatus*	Bernasconi, 1956b
OIUSP 693 (MZUSP)	NV	Asteroidea	*Mediaster trinadensis*	Bernasconi, 1957a
MACN-In 9069	NV	Asteroidea	*Hippasteria argentinensis*	Bernasconi, 1961a
MACN-In 9307	V	Asteroidea	*Perknaster densus patagonicus*	Bernasconi, 1962a
NHM AHFE60 (h) NHM AHFE61, MACN-In 26804 (p)	V	Asteroidea	*Ceramaster patagonicus fisheri*	Bernasconi, 1962c
AMNH 2234	V	Asteroidea	*Vemaster sudatlanticus*	Bernasconi, 1965c
AMNH 2237 (h) AMNH 2238 (p) MACN-In 26998 (p)	V	Asteroidea	*Calyptraster tenuissimus*	Bernasconi, 1966a
SAM-A-23450 (h) SAM-A-23451 (p) MACN-In 27106 (p)	NV	Ophiuroidea	*Nullamphiura marionensis*	Bernasconi, 1968
MACN-In 27147	V	Asteroidea	*Leptychaster melchiorensis*	Bernasconi, 1969b
MACN-In 27243	NVC	Asteroidea	*Bathybiaster herwigi*	Bernasconi, 1972
MACN-In 27315	V	Asteroidea	*Calyptraster vitreus*	Bernasconi, 1972
MACN-In 26991	NVC	Ophiuroidea	*Ophiurolepis granulifera*	Bernasconi & D'Agostino, 1973b
MACN-In 27862	NV	Ophiuroidea	*Amphilepis sanmatiensis*	Bernasconi & D'Agostino, 1975a
MACN-In 28148	V	Ophiuroidea	*Ophiomastus trispinosus*	Bernasconi & D'Agostino, 1977b

sioned, see Tablado & Venerus, 2000).

Remarks: Bernasconi (1937) indicated that she sent one specimen to HL Clark, whose opinion led her to determine it as a new species. However, she noted that it presents some similarities with *Pteraster militaris*. Fisher (1940) listed several species, which in his opinion, were closely related to or indistinguishable, from *Pteraster lebruni* Perrier, 1891 [according to Guille (1974), *Pteraster affinis lebruni*]. Among these species, he included *Pteraster marplatensis* and *Pteraster argentinus*. Then, AM Clark (1962) analyzed and compared the characteristics of specimens of *Pteraster affinis* and related forms from the Southern Ocean and South Atlantic. She concluded that the differences observed in *Pteraster marplatensis* are within the range of variation shown by specimens of *Pteraster affinis lebruni*. Later, Bernasconi (1964b) listed and accepted it as a synonym of *Pteraster affinis lebruni* Perrier, 1891.

Pteraster argentinus Bernasconi, 1935

Class: Asteroidea.
Family: Pterasteridae.
Genus: *Pteraster* Müller & Troschel, 1842.
Type species: *Asterias militaris* Müller, 1776 valid as *Pteraster militaris* (Müller, 1776).
Current status
Not valid, synonymized by Clark (1962) and confirmed by Bernasconi (1964b).
Valid name: *Pteraster affinis lebruni* Perrier, 1891.
Type information
Holotype: MACN-In 17798.
Museum: MACN.
Type locality: Off Mar del Plata (Buenos Aires province, Argentina), 39°26' S, 56°25' W, 101 m.
Paratype: MACN-In 17798-1 (1 spm, same locality as the holotype).
Remarks: Bernasconi (1935) described one specimen (R=44 mm, r=23, R=1.9r). Subsequently Bernasconi (1937) described two specimens as *typus*: one specimen (R=40, r=20, R=2r) and the holotype (R=44), for which she referred to as *otro espécimen* (other specimen), possibly due to a mix-up between the two specimens from the same locality. Tablado & Venerus (2000) stated that the second specimen (R=40) is a paratype. Clark (1962) analyzed and compared the characteristics of specimens of *Pteraster affinis* and related shapes from the Southern Ocean and South Atlantic. Clark (1962) concluded that the variation of having six arms observed in *Pteraster argentinus* is also found in the larger syntype of *Pteraster brachiatus* (*Pteraster affinis* Smith, 1876) from Kerguelen Plateu, Indian Ocean. Later, Bernasconi (1964b) listed and accepted it as a synonym of *Pteraster affinis lebruni* Perrier, 1891.

Diplopteraster clarki Bernasconi, 1937

Class: Asteroidea.
Family: Pterasteridae.
Genus: *Diplopteraster* Verrill, 1880.
Type species: *Diplopteraster nordernskjöldi* Koehler, 1923 valid as *Diplopteraster verrucosus* (Sladen, 1882).
Current status
Valid.
Valid name: *Diplopteraster clarki* Bernasconi, 1937.
Type information
Syntypes: MACN-In 16114 (2 spms).
Museum: MACN.
Type locality: Off Mar del Plata (Buenos Aires province, Argentina), 38°25' S, 56°20' W, 84 m.
Paratypes (after Tablado & Venerus, 2000): MACN-In 14403 (lost), MACN-In 15231 (3 spms), MACN-In 15652 (17 spms), MACN-In 15725 (2 spms), MACN-In 15765 (1 spm), MACN-In 16047 (lost), MACN-In 16262 (2 spms), MACN-In 16486 (deaccessioned), MACN-In 16767 (6 spms), MACN-In 16823 (1 spm), MACN-In 17178 (29 spms), MACN-In 18523 (deaccessioned), MACN-In 19489 (2 spms).
Remarks: Bernasconi (1937) indicated similarities between this species and, both *Diplopteraster verrucosus* (Sladen, 1882) and *Diplopteraster multipes* (Sars, 1866). According to Bernasconi, the syntypes consist of three specimens: two in ethanol and one dry. Currently, both ethanol preserved specimens were deaccessioned due to their severely degraded condition (Tablado & Venerus, 2000). As for the dry specimen, the collection record list has two dry specimens instead of one, and one of them with an unclear locality (see Tablado & Venerus 2000). Bernasconi (1937) also studied other specimens not indicated as *typus*, Tablado & Venerus (2000) listed them as paratypes; yet specimens MACN-In 14403 and MACN-In 16047 were not found and specimen MACN-In 18523 deaccessioned.

Luidia patriae Bernasconi, 1941c

Class: Asteroidea.
Family: Luidiidae.
Genus: *Luidia* Forbes, 1839.
Type species: *Luidia fragilissima* Forbes, 1839 valid as *Luidia ciliaris* (Philippi, 1837).
Current status
Valid.
Valid name: *Luidia patriae* Bernasconi, 1941c.
Type information
Holotype: MACN-In 17816.
Museum: MACN.
Type locality: Off Mar del Plata (Buenos Aires province, Argentina), 37°35' S, 55°30' W, 100 m.
Paratypes: MACN-In 17816-1.
Remarks: Bernasconi (1943) indicated that she sent one specimen, identical to the *typus* (*i.e.* holotype) to HL Clark, around 1940, whose opinion led her to determine it as a new species, although it was very similar to *Luidia clathrata*. She also noted similarities with *Luidia doellojuradoi*, which she distinguished from the new species by its total lack of pedicellariae. No synonymy is explicitly stated later by Clark (1982) or Clark & Downey (1992), although they did express some

reservations about it (see below). Accession number from the original description was MACN-In 24614, although the correct number is MACN-In 17816 (see Bernasconi, 1943), size and locality are the same. On the contrary MACN-In 24614 is a smaller specimen of *L. patriae*. Bernasconi (1943) originally described four specimens; however, Tablado and Venerus (2000) reported only the presence of two paratypes (MACN-In 17816-1). Regrettably, neither the holotype nor the paratypes could be located in the MACN collection upon recent examination

Luidia doellojuradoi Bernasconi, 1941c

Class: Asteroidea.
Family: Luidiidae.
Genus: *Luidia* Forbes, 1839.
Type species: *Luidia fragilissima* Forbes, 1839 valid as *Luidia ciliaris* (Philippi, 1837).
Current status
Not valid, synonymized by Clark (1953).
Valid name: *Luidia ludwigi scotti* Bell, 1917.
Type information
Holotype: MACN-In 8660.
Museum: MACN.
Type locality: Off Mar del Plata (Buenos Aires province, Argentina), ca. 38–39° S, 56–57° W, 86–90 m.
Paratype: MACN-In 8660-1 (8 spms).
Remarks: The species was proposed as a synonym of *Luidia ludwigi scotti* by Clark (1953) based on morphological features, with a noted difference in marginal spine length. This decision was initially rejected by Walenkamp (1976) but later supported by Clark (1982), who indicated that Walenkamp was unaware of Bernasconi's incorrect use of morphological terminology, which led to a mistaken identification of the species. Clark (1982) also suggested that *Luidia patriae* may prove to be synonymous with *Luidia ludwigi scotti*, an idea further reinforced by Clark & Downey (1992), who indicated that the relationship between *Luidia patriae* and this species (and thus with *Luidia ludwigi scotti*) needs further examination.
The species was dedicated to Martín Doello-Jurado, a distinguished zoologist from the MACN, who collected the specimen onboard the Argentine vessel Patria in 1914.
Bernasconi (1943) described nine specimens as *typus*, Tablado & Venerus (2000) found eight, and referred them as paratypes after Bernasconi used them to describe the species.

Luidia quequenensis Bernasconi, 1942a

Class: Asteroidea.
Family: Luidiidae.
Genus: *Luidia* Forbes, 1839.
Type species: *Luidia fragilissima* Forbes, 1839 valid as *Luidia ciliaris* (Philippi, 1837).
Current status
Not valid, synonymized by Clark (1982).
Valid name: *Luidia alternata alternata* (Say, 1825).
Type information
Holotype: MACN-In 23657.
Museum: MACN.
Type locality: near Puerto Quequén (Buenos Aires province, Argentina), 38°34' S, 58°41' W, 54–72 m.
Paratypes: MACN-In 23657-1 (1spm), 8613 (1spm).
Remarks: Bernasconi (1943) described three collected specimens: the holotype and two additional ones (not indicated in the original 1942 description), one of which was missing two arms (MACN-In 23657 and 23657-1). Tablado & Venerus (2000) reported the presence of only two specimens, which are currently available. Bernasconi (1943) also mentioned that another specimen was collected on the vessel Patria by Doello Jurado in February 1914, off Mar del Plata (MACN-In 8613). Both lots (i. e. MACN-In 23657-1 and 8613) were listed by Tablado & Venerus (2000) as paratypes after Bernasconi used them to describe the species. Later, she collected 10 additional specimens resembling the type in Puerto Quequén. Bernasconi (1943) stated that the new species was akin to *Luidia alternata* and *Luidia variegata* Perrier, 1875 (*Luidia alternata*). The species was subsequently synonymized by Clark (1982), who alleged that Bernasconi (1942a) confused the terminology used by Döderlein (1920) for describing the abactinal paxillae. This confusion led to the identification of non-existent differences among individuals, resulting in the erroneous description of new species within the genus.

Mellita platensis Bernasconi, 1947b

Class: Echinoidea.
Family: Mellitidae.
Genus: *Mellita* Agassiz, 1841.
Type species: *Mellita quinquiesperforata* (Leske, 1778).
Current status
Not valid, synonymized by Brito (1979).
Valid name: *Leodia sexiesperforata* (Leske, 1778)

Type information
Holotype: MACN-In 13762.
Museum: MACN.
Type locality: Off the Río de la Plata (Uruguay-Argentina), 35°39' S, 55°52' W, 23 m.
Remarks: The specimen was initially identified as *Mellita sexiesperforata* [*Leodia sexiesperforata* (Leske, 1778)] by Bernasconi (1947a), and later described by her as a new species, *Mellita platensis* Bernasconi, 1947b. Subsequently, Tommasi (1966) and Brito (1979) synonymized this species with *Mellita sexiesperforata*. Harold & Telford (1990) further supported this synonymy, stating that the original description and photographs leave no doubt about it. Since no photographs appear in the original description or in Brito (1979), they are likely referring to the images presented in Bernasconi's 1953 monograph on Argentinean echinoids. Additionally, Bernasconi (1953) noted that MACN-In 24135, collected at 36°24' S, 55°53' W, 16 m, and also identified as *Mellita sexiesperforata* [*Leodia sexiesperforata* (Leske, 1778)] in Bernasconi (1947a) corresponds to a specimen of *Mellita platensis*.

Holaster mortenseni **Bernasconi, 1954**

Class: Echinoidea.
Family: Holasteridae.
Genus: *Holaster* Agassiz, 1835.
Type species: *Holaster complanatus* Agassiz, 1835.
Current status
Valid.
Valid name: *Holaster mortenseni* Bernasconi, 1954.
Type information
Holotype: MACN-pi 4522.
Museum: MACN.
Type locality: Río Grande (Tierra del Fuego province, Argentina, Senonian?, Late Cretaceous).
Remarks: The only fossil described by Bernasconi. Holotype were not found in the MACN collection.

Centrostephanus besnardi **Bernasconi, 1955b**

Class: Echinoidea.
Family: Diadematidae Gray, 1855.
Genus: *Centrostephanus* Peters, 1855.
Type species: *Cidaris (Diadema) longispina* Philippi, 1845 valid as *Centrostephanus longispinus* (Philippi, 1845).
Current status
Valid.
Valid name: *Centrostephanus besnardi* Bernasconi, 1955b.
Type information
Holotype: OIUSP 728 (lost).
Museum: OIUSP, Brazil (see remarks).
Type locality: Trindade Island (Brazil), 20°30' S, 29°22' W.
Paratype: MACN In-7872 (1 spm, lost).
Remarks: Fell (1975) provided a brief review of the genus *Centrostephanus* Peters, 1855, emphasizing that the three nominal Atlantic species (*C. longispinus*, *C. rubicingulus*, and *C. besnardi*), along with juvenile specimens of *C. coronatus* from the eastern Pacific, "cannot be distinguished morphologically using adult characters. Identifications must rely on locality." He further suggested that when adult material of *C. besnardi* becomes available, it might prove to be merely a subspecies of *C. longispinus*. Subsequently, Pawson & Miller (1983) synonymized *C. besnardi* with *C. longispinus rubicingulus*. More recently, Gondim *et al.* (2018) followed this classification, considering *C. besnardi* as a junior synonym of *Centrostephanus longispinus rubricingulus* (Clark, 1921). According to Bernasconi, the specimens were originally deposited in the collection of the OIUSP. All the specimens from that collection were transfer to the MZUSP, although, no specimens of *C. besnardi* were currently found at the MZUSP (see Gondim *et al.,* 2018). Bernasconi (1955b) described a cotype MACN In-7872, which Tablado & Venerus (2000) listed as a paratype, and is recorded as present at the MACN. However, this specimen appears to have been lost. According to Fell (1975), Bernasconi described this species based on two juvenile specimens, suggesting that the MACN specimen could indeed be one of the paratypes.

Anthenoides brasiliensis **Bernasconi, 1956b**

Class: Asteroidea.
Family: Goniasteridae Forbes, 1841.
Genus: *Anthenoides* Perrier, 1881.
Type species: *Anthenoides peircei* Perrier, 1881.
Current status
Not valid, synonymized by Walenkamp (1976).
Valid name: *Anthenoides peircei* Perrier, 1881.
Type information
Holotype: OIUSP 713 (lost).
Museum: OIUSP, Brazil (see remarks).
Type locality: off Palmares do Sul (Brazil), 30°43' S, 48°52' W, 193 m.

Remarks: A similar situation occurred with *C. besnardi*, as all the specimens from the collection of the OIUSP were transferred to the MZUSP. However, no specimens of *A. brasiliensis* were found at the MZUSP (Luciana Martins, *Museu de Zoologia,* São Paulo, personal communication, 2-August-2024). Bernasconi (1960) studied two specimens from 23°45' S, 42°29' W, 146 m, and designated them as paratypes (MACN-In 8352). Although those specimens are currently available, there are not considered types, as they were studied after the original description of the species.

Clypeaster subdepressus lobulatus Bernasconi, 1956b

Class: Echinoidea.
Family: Clypeasteridae Agassiz, 1835.
Genus: *Clypeaster* Lamarck, 1801.
Type species: *Echinus rosaceus* Linnaeus, 1758 valid as *Clypeaster rosaceus* (Linnaeus, 1758).
Species: *Echinanthus subdepressus* Gray, 1825 valid as *Clypeaster subdepressus*.
Subspecies: *Clypeaster subdepressus subdepressus* (Gray, 1825).
Clypeaster subdepressus lobulatus Bernasconi, 1956b.
Current status
Valid.
Valid name: *Clypeaster subdepressus lobulatus* Bernasconi, 1956b.
Type information
Holotype: OIUSP 712 (Lost).
Museum: OIUSP, Brazil (same case as the other specimens from this institute).
Type locality: Ubatuba northern coast of São Paulo (Brazil).
Paratype: MACN-In 7897 (3 spms, 1 lost).
Remarks: In the paper, the specimens are cataloged as "MACN 7898." However, a handwritten correction by Bernasconi, discovered on a copy of her paper in the MACN, clarified that the correct number of the paratypes is MACN-In 7897, with the holotype designated as OIUSP 712. Although the paper indicates three paratype specimens, only two were found.

Mediaster trinadensis Bernasconi, 1957a

Class: Asteroidea.
Family: Goniasteridae Forbes, 1841.
Genus: *Mediaster* Stimpson, 1857.
Type species: *Mediaster aequalis* Stimpson, 1857.
Current status
Not valid, synonymized by Halpern (1970).
Valid name: *Mediaster pedicellaris* (Perrier, 1881).
Type information
Holotype: OIUSP 693 (lost).
Museum: OIUSP, Brazil (same case as the other two specimens from this institute).
Type locality: Trindade Island (Brazil), 20°30' S, 29°22' W.
Remarks: The species was synonymized with *Mediaster pedicellaris* (Perrier, 1881) by Halpern (1970), a decision later confirmed by Bernasconi according to their personal notes.

Hippasteria argentinensis Bernasconi, 1961a

Class: Asteroidea.
Family: Goniasteridae.
Genus: *Hippasteria* Gray, 1840.
Type species: *Asterias phrygiana* Parelius, 1768 valid as *Hippasteria phrygiana* (Parelius, 1768).
Current status
Not valid, synonymized by Mah *et al.* (2014).
Valid name: *Hippasteria phrygiana* (Parelius, 1768).
Type information
Holotype: MACN-In 9069.
Museum: MACN.
Type locality: Off Mar del Plata (Buenos Aires province, Argentina), 38°12' S, 55°20' W, 108–162 m.
Remarks: According to Bernasconi (1961a), the species is closely related to *Hippasteria phrygiana* (Parelius, 1768) and *Hippasteria phrygiana var. capensis* Mortensen, 1933. Clark & Downey (1992) considered it a subspecies of *Hippasteria phrygiana* (*Hippasteria phrygiana argentinensis* Bernasconi 1961a). More recently, it was synonymized with *Hippasteria phrygiana* by Mah *et al.* (2014), who stated that attempts to distinguish and describe subspecies within the genus *Hippasteria*, such as *Hippasteria phrygiana argentinensis* and others mentioned in the work by Clark & Downey (1992), were unsuccessful. The supposed distinguishing characteristics, such as spine counts, showed overlapping ranges, making it challenging to reliably separate the subspecies based on these traits alone.

Perknaster densus patagonicus Bernasconi, 1962a

Class: Asteroidea.
Family: Asterinidae.
Genus: *Perknaster* Sladen, 1889.
Type species: *Perknaster fuscus* Sladen, 1889.
Species: *Perknaster densus* Sladen, 1889.
Subspecies: *Perknaster densus densus* Sladen, 1889.
Perknaster densus patagonicus Bernasconi, 1962a.
Current status
Valid.
Valid name: *Perknaster densus patagonicus* Bernasconi, 1962a.
Type information
Holotype: MACN-In 9307.
Museum: MACN.
Type Locality: Cabo Blanco (Santa Cruz province, Argentina).
Remarks: The species *Perknaster densus* Sladen, 1889 was initially described from the Kerguelen Island area and was recently reported from the deep waters of the Argentine Sea (Hurtado-García & Manjón-Cabeza, 2022). This species follows a similar distribution pattern observed for *Leptychaster kerguelensis* Smith, 1876, which was also reported in the same region (Romanelli & Tablado, 2011; Rivadeneira *et al.*, 2020).

Ceramaster patagonicus fisheri Bernasconi, 1962c

Class: Asteroidea.
Family: Goniasteridae.
Genus: *Ceramaster* Verrill, 1899.
Type species: *Pentagonaster patagonicus* Sladen, 1889, valid as *Ceramaster patagonicus* (Sladen, 1889).
Species: *Pentagonaster patagonicus* Sladen, 1889, valid as *Ceramaster patagonicus* (Sladen, 1889).
Subspecies: *Ceramaster patagonicus patagonicus* (Sladen, 1889).
Ceramaster patagonicus euryplax Clark, 1923.
Ceramaster patagonicus fisheri Bernasconi, 1962c.
Ceramaster patagonicus productus Djakonov, 1950.
Current status
Valid.
Valid name: *Ceramaster patagonicus fisheri* Bernasconi, 1962c.
Type information
Holotype: AHFE60.
Museum: NHM, USA.
Type locality: near White's Cove, Catalina Island (California, USA), 33°23'30'' N, 118°19'20'' W, 221–475 m.
Paratype: MACN-In 26804 (1 spm), in the original description known as AHFE61.
Remarks: In the original description, Bernasconi indicated that the holotype and paratype were from the same locality and part of the Allan Hancock Foundation collection, which was sent to Bernasconi by Cap. Fred Ziesenhenne as a loan. While there are records of the paratype in several publications (*e.g.*, as mentioned in Tablado & Venerus, 2000), there are no records of the holotype.

Vemaster sudatlanticus Bernasconi, 1965c

Class: Asteroidea.
Family: Asterinidae.
Genus: *Vemaster* Bernasconi, 1965c.
Type species: *Vemaster sudatlanticus* Bernasconi, 1965c.
Current status
Valid.
Valid name: *Vemaster sudatlanticus* Bernasconi, 1965c.
Type information
Holotype: Ech. 2234.
Museum: AMNH, USA.
Type locality: South Atlantic Ocean, 49°21.2'S, 47°44.6'W, 5055 m.

Calyptraster tenuissimus Bernasconi, 1966a

Class: Asteroidea.
Family: Pterasteridae.
Genus: *Calyptraster* Sladen, 1882.
Type species: *Calyptraster coa* Sladen, 1882.
Current status
Valid.
Valid name: *Calyptraster tenuissimus* Bernasconi, 1966a.
Type information
Holotype: Ech. 2237.
Museum: AMNH, USA.
Type locality: Off Magellan Strait, 52°22'S, 65°45'W, 116 m.
Paratypes: AMNH Ech. 2238 (1 spm), MACN-In 26998 (1 spm).
Remarks: There are three specimens, all from the same locality.

Nullamphiura marionensis Bernasconi, 1968

Class: Ophiuroidea.
Family: Amphiuridae.
Genus: *Nullamphiura* Fell, 1962 [*Amphiura* Forbes, 1843].
Type species: *Amphiura psilopora* Clark, 1911.
Current status
Not valid, synonymy according to Rowe & Clark (1975).
Valid name: *Amphiura tomentosa* Lyman, 1879.
Type information
Holotype: SAM-A-23450.
Museum: SAM, South Africa.
Type locality: Tul Cove, Marion Island (South Africa), 3 m.
Paratypes: SAM-A-23451 (3 spms), MACN-In 27106 (2 spms, juveniles).
Remarks: Rowe and Clark (1975) discussed the taxonomic aspects of several echinoderms from Marion Island. In their study, they examined six specimens and identified them as *Amphiura tomentosa*, a species previously described from Kerguelen Island by Lyman (1879). They concluded that the differences observed by Bernasconi in her specimens were attributable to natural variation within the species.

Leptychaster melchiorensis Bernasconi, 1969b

Class: Asteroidea.
Family: Astropectinidae.
Genus: *Leptychaster* Smith, 1876.
Type species: *Leptychaster kerguelenensis* Smith, 1876.
Current status
Valid.
Valid name: *Leptychaster melchiorensis* Bernasconi, 1969b.
Type information
Holotype: MACN-In 27147.
Museum: MACN.
Type locality: Melchior Archipelago (Antarctica), 64°18' S, 63° W, 110 m.
Paratype: MACN-In 27148 (1 spm).
Remarks: According to Bernasconi (1969b), this species resembles *Leptychaster flexuosus* (Koehler, 1920) and could even be considered a subspecies of it. However, until new specimens are analyzed its morphology remains sufficient to indicate that it is a distinct species (Bernasconi 1969b).

Bathybiaster herwigi Bernasconi, 1972

Class: Asteroidea.
Family: Astropectinidae.
Genus: *Bathybiaster* Danielssen & Koren, 1883.
Type species: *Archaster vexillifer* Wyville Thomson, 1873 valid as *Bathybiaster vexillifer.*
Current status
Not valid.
Valid name: *Psilaster herwigi* (Bernasconi, 1972) (Astropectinidae), new combination by Clark & Downey (1992)
Type information
Holotype: MACN-In 27243.
Museum: MACN.
Type Locality: Off the Río de la Plata (Uruguay), 35°48' S, 52°48' W, 800 m.
Paratypes: MACN-In 27242-1 (4 spms), MACN-In 27243-2 (10 spms), MACN-In 27244-1 (1 spm), MACN-In 27305 (1 spm).
Remarks: Specimens MACN-In 27242-1 (4 spms), MACN-In 27243-2 (10 spms), MACN-In 27244-1 (1 spm), MACN-In 27305 (1 spm) were listed as a paratype by Tablado & Venerus (2000).

Calyptraster vitreus Bernasconi, 1972

Class: Asteroidea.
Family: Pterasteridae.
Genus: *Calyptraster* Sladen, 1882.
Type species: *Calyptraster coa* Sladen, 1882.
Current status
Valid.
Valid name: *Calyptraster vitreus* Bernasconi, 1972.
Type information
Holotype: MACN-In 27315.
Museum: MACN.
Type Locality: Near the Malvinas Islands, 50° S, 62°50' W, 145 m.
Remarks: According to Bernasconi's notes, a paratype was stored at the *Instituto de Biología Marina* of Mar del Plata and then deposited in the MACN in December 1981 by Tablado, paratype MACN 27315-a (see Tablado & Venerus, 2000). However the specimen was not indicated in the original description of the species.

Ophiurolepis granulifera Bernasconi & D'Agostino, 1973b

Class: Ophiuroidea.
Family: Ophiuridae.
Genus: *Ophiurolepis* Matsumoto, 1915.
Type species: *Ophiolepis carinata* Studer, 1876 valid as *Ophioplinthus carinata.*
Current status
Not valid.

Valid name: *Ophioplinthus granulifera* (Bernasconi & D'Agostino, 1973b) (Ophiopyrgidae), new combination by Martynov & Litvinova (2008).
Type information
Holotype: MACN-In 26991.
Museum: MACN.
Type Locality: Petermann Island (Antarctica), 65°11'S, 64°10'W, 400 m.
Paratype: MACN-In 26992 (1spm).

Amphilepis sanmatiensis Bernasconi & D'Agostino, 1975a

Class: Ophiuroidea.
Family: Amphilepidae.
Genus: *Amphilepis* Ljungman, 1867.
Type species: *Amphiura norvegica* Ljungman, 1865 valid as *Amphilepis norvegica*.
Current status
Not valid.
Valid name: *Amphioplus lucyae* Tommasi, 1971 (Amphiuridae), synonymized by Brogger & O'Hara (2015).
Type information
Holotype: MACN-In 27862.
Museum: MACN.
Type Locality: San Matías gulf (Río Negro province, Argentina), 41°42' S, 64° 59' W, 20–25 m.
Remarks: The species was synonymized by Brogger & O'Hara (2015) and is now recognized as *Amphioplus lucyae* Tommasi, 1971. In the original description of *A. sanmatiensis*, Bernasconi & D'Agostino (1975a) also named another species, *Ophiacantha ingrata* (Koehler, 1923). However, this name is considered a *nomen nudum*, as it is a misused species name without a valid description. The authors were probably referring to *Ophiomitrella ingrata* Koehler, 1907, by the same author but a different genus and year.

Ophiomastus trispinosus Bernasconi & D'Agostino, 1977b

Class: Ophiuroidea.
Family: Ophiuridae.
Genus: *Ophiomastus* Lyman, 1878.
Type species: *Ophiomastus tegulitius* Lyman, 1878.
Current status
Valid.
Valid name: *Ophiomastus trispinosus* Bernasconi & D'Agostino, 1977b.
Type information
Holotype: MACN-In 28148.
Museum: MACN.
Type Locality: South Sandwich Islands (Scotia Arc), 56°42' S, 27° W, 95 m.
Remarks: According to Bernasconi & D'Agostino (1977b), the holotype resembles *Ophiomastus bispinosus* Mortensen, 1925 (Mortensen, 1925; Fell, 1961) but differs in having three brachial spines and inconspicuous tentacular pores with a scale-like appearance in all segments.

Publication chronology

Bernasconi was a distinguished zoologist who dedicated her life to the study of echinoderm taxonomy, leaving a lasting legacy in the field. Over the course of her career, she authored 68 scientific papers, 58 as a sole author and 10 in collaboration with D'Agostino. Her research primarily focused on different groups of echinoderms, with 60% of her studies dedicated to asteroids, 32% to echinoids, 26% to ophiuroids, and 3% to crinoids and holothuroids. Her first paper was published in 1925, and her last appeared 55 years later, in 1980 (see below). During this period Bernasconi's contributions included the description of 25 new taxa, starting in 1935 with her first discovery and culminating in 1977 with her last, co-authored with D'Agostino. This remarkable 42-year interval between her first and most recent species descriptions underscores her extraordinary dedication and perseverance. This timeline not only reflects her enduring commitment but also surpasses the typical career span of many specialists in the field. Bernasconi's work provided a foundational contribution to the understanding of the biogeography and ecology of echinoderms in the Southern Hemisphere, particularly in the often-understudied Argentine and sub-Antarctic regions. Her emphasis on accurate species descriptions continues to inspire modern researchers, bridging the gap between classical taxonomy and contemporary molecular techniques.

BERNASCONI REPORTS

1. Bernasconi, I. 1925. Resultados de la primera expedición a Tierra del Fuego (1921), enviada por la Facultad de Ciencias Exactas, Físicas y Naturales de la Universidad Nacional de Buenos Aires, Equinodermos I. Equinoideos. *Anales de la Sociedad Científica Argentina* 99: 247–261.
2. Bernasconi, I. 1926. Una ofiura vivípara de Necochea. *Anales del Museo Nacional de Historia Natural* 34: 145–153.
3. Bernasconi, I. 1932. Notas sobre un crinoideo de

Sud Georgia. *Anales del Museo Nacional de Historia Natural* 37: 29–35.
4. Bernasconi, I. 1934. Los Equinodermos de los mares argentinos. *Boletín del Centro Naval* 506(53): 1–21.
5. Bernasconi, I. 1935. Dos nuevas especies de *Pteraster* en la Argentina. *Physis* 11: 482–483.
6. Bernasconi, I. 1937. Asteroideos argentinos. I. Pterasteridae. *Anales del Museo Argentino de Ciencias Naturales* 39: 167–187, 8 plates.
7. Bernasconi, I. 1941a. Los equinodermos de la expedición del Buque Oceanográfico Comodoro Rivadavia A.R.A. *Physis* 19: 37–49, 8 plates.
8. Bernasconi, I. 1941b. Sobre la distribución geográfica de *Mellita sexiesperforata* (Leske). *Physis* 19: 106–108.
9. Bernasconi, I. 1941c. Dos nuevas especies argentinas de *Luidia*. *Physis* 19: 117–118.
10. Bernasconi, I. 1942a. Los Asteroideos sudamericanos de la familia Luidiidae. *Physis* 19: 252–253.
11. Bernasconi, I. 1942b. Primeros estados larvales de *Arbacia dufresnei* (Blainville). *Physis* 19: 305–312.
12. Bernasconi, I. 1943. Los asteroideos sudamericanos de la familia Luidiidae. *Anales del Museo Argentino de Ciencias Naturales* 41: 1–20, 5 plates.
13. Bernasconi, I. 1947a. Distribución geográfica de los equinoideos argentinos. *Anales de la Sociedad Argentina de Estudios Geográficos* 8: 97–114.
14. Bernasconi, I. 1947b. Una nueva especie de "*Mellita"* en la República Argentina. *Physis* 20: 117–118.
15. Bernasconi, I. 1947c. Bernasconi 1947 Notas Equinológicas. Distribución geográfica de los Hemiasteridae argentinos. *Physis* 20: 118–120.
16. Bernasconi, I. 1953. Monografía de los equinoideos Argentinos. *Anales del Museo de Historia Natural de Montevideo* 6(2): 1–58, 32 plates.
17. Bernasconi, I. 1954. Notas sobre una nueva especie de equinoideo fósil de Tierra del Fuego. *Physis* 20(59): 397–400.
18. Bernasconi, I. 1955a. Equinodermos. Rectificaciones taxonómicas. *Neotropica* 1(5): 72.
19. Bernasconi, I. 1955b. Una nueva especie de Diadematidae tropical. *Neotropica* 1(6): 81.
20. Bernasconi, I. 1955c. Equinoideos y Asteroideos de la Colección del Instituto Oceanográfico de la Universidad de San Pablo. (Primera contribución). *Boletim do Instituto Oceanográfico* 6(1/2): 51–91.
21. Bernasconi, I. 1956a. Algunos asteroideos de Antártida. *Anales de la Sociedad Científica Argentina* 161: 7–30, 6 plates.
22. Bernasconi, I. 1956b. Dos nuevos equinodermos de la costa del Brasil. *Neotropica* 2(8): 33–36.
23. Bernasconi, I. 1957a. Otra nueva especie de asteroideo brasileño. *Neotropica* 3(11): 33–34.
24. Bernasconi, I. 1957b. Equinoideos y asteroideos de la colección del Instituto Oceanográfico - U.S.P. (Segunda contribución). *Boletim do Instituto Oceanográfico* 7(1-2): 119–149.
25. Bernasconi, I. 1958. Asteroideos de la colección del Instituto Oceanográfico de la Universidad de San Pablo. *Boletim do Instituto Oceanográfico* 9(1-2): 13–21.
26. Bernasconi, I. 1959a. Algunos asteroideos de Antártida. *Contribución del Instituto Antártico Argentino* 1: 1–22.
27. Bernasconi, I. 1959b. Equinoideos fósiles de la colección del Museo Argentino de Ciencias Naturales. *Physis* 21(61): 137–176.
28. Bernasconi, I. 1960. Los equinodermos de la campaña 1958 del buque oceanográfico Capitán Cánepa A.R.A. *Actas y Trabajos del Primer Congreso Sudamericano de Zoología* 3: 21–32.
29. Bernasconi, I. 1961a. Una nueva especie de asteroideo. *Neotropica* 7(22): 1–2.
30. Bernasconi, I. 1961b. Nota sobre *Stichaster striatus* Müller & Troschel. *Physis* 21(62): 318–321.
31. Bernasconi, I. 1962a. *Perknaster densus patagonicus* nueva subespecie de la Argentina (Echinod.). *Physis* 23(65): 257–258.
32. Bernasconi, I. 1962b. Asteroideos argentinos. III. Odontasteridae. *Revista del Museo Argentino de Ciencias Naturales "Bernardino Rivadavia"* 8(3): 27–51, 7 plates.
33. Bernasconi, I. 1962c. *Ceramaster patagonicus fisheri*, nueva sub especie de California. *Anales del Instituto de Biología (Universidad de México)* 33(1-2): 287–291.
34. Bernasconi, I. 1963a. Asteroideos Argentinos. IV. Goniasteridae. *Revista del Museo Argentino de Ciencias Naturales "Bernardino Rivadavia"* 9(1): 1–26, 5 plates.
35. Bernasconi, I. 1963b. Contribución a la bibliografía Latino Americana sobre equinodermos, 1648-1962. *Centro de Cooperación Científica para América Latina* 1–28.
36. Bernasconi, I. 1964a. Distribución geográfica de las especies *Cycethra* (Asteroidea, Ganeriidae). *Anais do II Congresso Latino-Americano de Zoologia* 1: 239–244.
37. Bernasconi, I. 1964b. Asteroideos argentinos claves para los órdenes, familias, subfamilias y géneros. *Physis* 24(68): 241–277.
38. Bernasconi, I. 1964c. Distribución geográfica de los equinoideos y asteroideos de la extremidad austral de Sudamérica. *Boletín del Instituto de Biología Marina* 7: 43–49.
39. Bernasconi, I. 1964d. Asteroideos argentinos. V. Ganeriidae. *Revista del Museo Argentino de Ciencias Naturales "Bernardino Rivadavia"* 9(4): 59–89, 6 plates.
40. Bernasconi, I. 1965a. *Astrotoma agassizii* Lyman, especie vivípara del Atlántico Sur (Ophiuroidea, Gorgonocephalidae). *Physis* 25(69): 1–5.
41. Bernasconi, I. 1965b. Ophiuroidea de Puerto Deseado (Santa Cruz, Argentina). *Physis* 25(69): 143–152.
42. Bernasconi, I. 1965c. Nuevo género y nueva especie abisal de Goniasteridae (Echinodermata, Asteroidea). *Physis* 25(70): 333–335.
43. Bernasconi, I. 1966a. Descripción de una nueva especie de *Calyptraster* (Asteroidea, Pterasteri-

dae). *Physis* 26(71): 95–99.
44. Bernasconi, I. 1966b. Los equinoideos y asteroideos colectados por el buque oceanográfico R/V Vema, frente a las costas argentinas, uruguayas y sur de Chile. *Revista del Museo Argentino de Ciencias Naturales "Bernardino Rivadavia"* 9(7): 147–175, 2 plates.
45. Bernasconi, I. 1967a. Algunos asteroideos abisales del oeste de Chile. *Physis* 26(73): 443–449.
46. Bernasconi, I. 1967b. Asteroideos de Puerto Paraíso, Península Antártica. *Contribuciones del Instituto Antártico Argentino* 113: 1–27, 6 plates.
47. Bernasconi, I. 1968. Equinodermos de las Islas Marion y Principe Eduardo con descripción de una nueva especie de ofiuroideo. *Physis* 28(76): 55–58.
48. Bernasconi, I. 1969a. Equinodermos antárticos 1. Equinoideos. *Revista del Museo Argentino de Ciencias Naturales "Bernardino Rivadavia"* 9(9): 197–210.
49. Bernasconi, I. 1969b. Una nueva especie de Asteroideo antártico *Leptychaster melchiorensis* sp. nov. (Asteroidea, Astropectinidae). *Neotropica* 15(47): 95–97.
50. Bernasconi, I. 1970a. Sobre la validez especifica de *Austrocidaris lorioli* (Mortensen, 1903) (Echinodermata, Echinoidea). *Physis* 30(80): 251–254.
51. Bernasconi, I. 1970b. Equinodermos Antárticos - II. Asteroideos - 5. Asteroideos de la extremidad norte de la Península Antártica. *Revista del Museo Argentino de Ciencias Naturales "Bernardino Rivadavia"* 9(10): 211–281, 20 plates.
52. Bernasconi, I. 1971. Echinodermata. In: E.R. van Zinderen Bakker, J.R. Winterbottom & R.A. Dyers (eds), *Marion and Prince Edward Islands. Report on the South African Biological and Geological Expedition, 1965–1966*, pp. 284–287, 2 pls. Cape Town, A.A. Balkema.
53. Bernasconi, I. & M.M. D'Agostino 1971. Ofiuroideos Argentinos: claves para los órdenes, subórdenes, familias, subfamilias y géneros. *Physis* 30(81): 447–469.
54. Bernasconi, I. 1972. Nuevas especies de Asteroidea: *Bathybiaster herwigi* sp. nov. (Astropectinidae) y *Calyptraster vitreus* sp. nov. (Pterasteridae). *Physis* 31(82): 9–14.
55. Bernasconi, I. 1973a. Los equinodermos colectados por el Walther Herwig en el Atlántico Sudoeste. *Revista del Museo Argentino de Ciencias Naturales "Bernardino Rivadavia"* 3(3): 285–334, 7 plates.
56. Bernasconi, I. 1973b. Asteroideos argentinos. VI. Asterinidae. *Revista del Museo Argentino de Ciencias Naturales "Bernardino Rivadavia"* 3(4): 335–346, 2 plates.
57. Bernasconi, I. & M.M. D'Agostino 1973a. El género *Ophiomastus* Lyman, 1878 y descripción de una especie abisal, *O. molinae* Castillo, 1968 (Ophiuroidea, Ophiuridae). *Physis* Sección A 32(84): 197–202.
58. Bernasconi, I. & M.M. D'Agostino 1973b. Nueva especie de ofiuroideo antártico, *Ophiurolepis granulifera* sp. nov. (Ophiuroidea, Ophiuridae). *Physis* Sección A 32(85): 263–266.
59. Bernasconi, I. & M.M. D'Agostino 1974a. Ampliación del área de distribución de *Amphiura crassipes* Ljungman, 1866 (Ophiuroidea, Amphiuridae). *Physis* Sección A 33(86): 135–138.
60. Bernasconi, I. & M.M.D'Agostino 1974b. Equinodermos Antárticos, III. Ofiuroideos, 1. Ofiuroideos del extremo norte de la Península Antártica. *Revista del Museo Argentino de Ciencias Naturales "Bernardino Rivadavia"* 4(2): 81–133.
61. Bernasconi, I. & M.M.D'Agostino 1975a. Nueva especie de ofiuroideo argentino *Amphilepis sanmatiensis* sp. nov. (Ophiuroidea, Amphilepididae). *Physis* Sección A 34(89): 355–358.
62. Bernasconi, I. & M.M.D'Agostino 1975b. Equinodermos antárticos. III. Ofiuroideos. 2) Ofiuroideos de Georgias del Sur. *Revista del Museo Argentino de Ciencias Naturales "Bernardino Rivadavia"* 5(1): 1–23.
63. Bernasconi, I. 1977. Hallazgo en el Océano Antártico de *Eremicaster gracilis* (Sladen 1883) (Asteroidea, Porcellanasteridae). *Physis* Sección A 36(92): 81–82.
64. Bernasconi, I. & M.M.D'Agostino 1977a. Ofiuroideos del mar epicontinental argentino. *Revista del Museo Argentino de Ciencias Naturales "Bernardino Rivadavia"* 5(5): 65–114.
65. Bernasconi, I. & M.M.D'Agostino 1977b. Nueva especie de ofiuroideo antártico, *Ophiomastus trispinosus* sp. nov. (Ophiuroidea, Ophiuridae). *Physis* Sección A 36(92): 65–67.
66. Bernasconi, I. & M.M.D'Agostino 1978. Equinodermos antárticos. III Ofiuroideos. 3) Ofiuroideos de Sandwich del Sur y Georgias del Sur. *Revista del Museo Argentino de Ciencias Naturales "Bernardino Rivadavia"* 5(8): 203–218.
67. Bernasconi, I. 1979. Asteriidae, Coscinasteriinae de la Argentina y Antártida. *Revista del Museo Argentino de Ciencias Naturales "Bernardino Rivadavia"* 5(11): 241–246, 3 plates.
68. Bernasconi, I. 1980. Asteroideos argentinos. VII. Echinasteridae. *Revista del Museo Argentino de Ciencias Naturales "Bernardino Rivadavia"* 5(12): 247–258, 4 plates.

ACKNOWLEDGMENTS

The authors would like to express their gratitude to Daiana Ferraro and Susana Maytía Romero for their valuable comments on the manuscript. Juan José Alvarado and Francisco Solís-Marín kindly and constructively reviewed the present work. We also thank the curators of various museum and institutional collections who were consulted for specimens, information, or assistance in tracing potentially lost type material. Your ongoing efforts to manage biological collections are deeply appreciated; without them, the accumulated knowledge of many researchers

would be lost. Finally, we acknowledge the past and present editors of the *Revista del Museo Argentino de Ciencias Naturales*, Argentina's first and longest-running scientific journal, which has been published without interruption for over 160 years.

REFERENCES

Agassiz, L. 1836. Prodrome d'une Monographie des Radiaires ou Echinodermes. *Mémoires de la Société des Sciences naturelles de Neuchâtel* 1: 168–199.

Agassiz, L. 1841. *Monographies d'Échinodermes vivans et fossiles.* Échinites. *Famille des Clypéasteroides*. 2 (Seconde Monographie). Des Scutelles. Neuchâtel, Switzerland, i–iv, 1–151, pls. 1–27.

Bell, F.J. 1917. Echinoderma, Part I. Actinogonidiata. *Natural History Reports of the British Antarctic "Terra Nova" Expedition, Zoology* 4(1): 1–10.

Brito, I.M. 1979. Clipeasteróides Cenozóicos do Brasil (*Echinodermata, Echinoidea*). *Anais da Academia Brasileira de Ciências* 51(4): 729–740.

Brogger, M.I., D.G. Gil, T. Rubilar, M.I. Martinez, M.E. Díaz de Vivar, M. Escolar, L. Epherra, A.F. Pérez & A. Tablado. 2013. Echinoderms from Argentina: biodiversity, distribution and current state of knowledge. In: J.J. Alvarado & F.A. Solís-Marín (eds.), *Echinoderms Research and Diversity in Latin America,* pp. 359–402, Springer, Berlin, Germany.

Brogger, M.I. & T.D. O'Hara. 2015. Revision of some ophiuroid records (*Echinodermata: Ophiuroidea*) from Argentina. *Zootaxa* 3972: 432–440.

Clark, H.L. 1911. North Pacific Ophiurans in the collection of the United States National Museum. *Smithsonian Institution United States National Museum Bulletin* 75: 1–302.

Clark, A.H. 1921. Report on the crinoids collected by the Barbados-Antigua Expedition from the University of Iowa in 1918. *University of Iowa Studies in Natural History* 9(5): 1–28.

Clark, H.L. 1923. The Echinoderm fauna of South Africa. *Annals of the South African Museum* 13(7): 221–435, 23 pls.

Clark, A.M. 1953. Notes on asteroids in the British Museum (Natural History). III. *Luidia.* IV. *Tosia* and *Pentagonaster. Bulletin of the British Museum of Natural History (Zoology)* 1: 379–412.

Clark, A.M. 1962. Asteroidea. *Report of the B.A.N.Z. Antarctic Research Expedition, 1929–31,* B9: 1–104, 5 pls., 18 figs.

Clark, A.M. 1982. Notes on Atlantic Asteroidea. 2. *Luidiidae. Bulletin of the British Museum of Natural History (Zoology)* 42: 157–184, 6 figs.

Clark, A.M. & Downey, M.E. 1992. *Starfishes of the Atlantic.* Natural History Museum: 779.

Danielssen, D.C. & J. Koren. 1883. Fra den norske Nordhavsexpedition. *Nyt magazin for naturvidenskaberne* 27: 267–299.

Djakonov, A.M. 1950 (1968 translation). Starfish of the Soviet Union [Sea stars (*Asteroids*) of the USSR Seas.]. *Tableaux analytiques de la faune de l'URSS* 34: 1–203, 23 pls.

Döderlein, L. 1920. Die Asteriden der *Siboga*-Expedition. 2. Die Gattung *Luidia* und ihre Stammesgeschichte. *Siboga Expedition* 4: 193–291.

Fell, H.B. 1961. The fauna of the Ross Sea. Part I. Ophiuroidea. *Memoirs of the New Zealand Oceanographic Institute* 18: 1–79, frontis., text-figs 1–9, col. pls 1–2, pls 1–19. (*Bulletin of the New Zealand Department of Scientific and Industrial Research* 142).

Fell, H.B. 1962. A Revision of the Major Genera of Amphiurid Ophiuroidea. *Transactions Royal Society of New Zealand* 88(4): 1–26.

Fell, F.J. 1975. The echinoid genus *Centrostephanus* in the south Pacific Ocean with a description of a new species. *Journal Royal Society of New Zealand* 5(2): 179–193.

Ferraro, D.P., L.I. de Cabo, M.M. Libertelli, M.L. Quartino, L. Chornogubsky, S. Tancoff, Y. Davies & L.E. Cruz. 2020. Mujeres científicas del Museo Argentino de Ciencias Naturales: "Las Cuatro de Melchior". *Revista del Museo Argentino de Ciencias Naturales* 22(2): 249–264.

Fisher, W.K. 1940. Asteroidea. *Discovery Report* 20: 69–306, 23 pls.

Forbes, E. 1839. On the Asteriadae of the Irish Sea. *Memoirs of the Wernerian Natural History Society of Edinburgh* 8: 114–129.

Forbes, E. 1841. A history of British Starfishes and other animals of the class Echinodermata. London; John Van Voorst. 267 pp.

Forbes, E. 1843. On the radiata of the eastern Mediterranean. *Transactions of the Linnean Society of London* 19: 143–153.

Gondim, A.I., R.B. De Moura, M.L. Christoffersen & T.L.P. Dias. 2018. Taxonomic guide and historical review of echinoids (Echinodermata: Echinoidea) from northeastern Brazil. *Zootaxa* 4529(1): 1–72.

Gray, J.E. 1825. An attempt to divide the Echinida, or Sea Eggs, into natural families. *Annals of Philosophy*, new series 10: 423–431.

Gray, J.E. 1840. XXXII. A synopsis of the genera and species of the class *Hypostoma* (*Asterias*, Linnaeus). *Annals of the Magazine of Natural History* 6: 275–290.

Gray, J.E. 1855. An arrangement of the families of Echinida, with descriptions of some new genera and species. *Proceedings of the Zoological Society of London* 23: 35–39.

Guille, A. 1974. Echinodermes: Asterides et Ophiurides. In: P. Grua (ed.), *Invertebres de l'infralittoral rocheux dans l'Archipel de Kerguelen*. 3. CNFRA 35, pp. 32–44, Impression Internationales, Paris.

Halpern, J.A. 1970. Goniasteridae (Echinodermata: Asteroidea) of the Straits of Florida. *Bulletin of Marine Science* 20(1): 193–286.

Harold, A.S., & M. Telford. 1990. Systematics, phylogeny and biogeography of the genus *Mellita* (Echinoidea: Clypeasteroida). *Journal of Natural History* 24(4): 987–1026.

Hurtado-García, J., & M.E. Manjón-Cabeza. 2022. Spe-

cies composition of sea stars (Echinodermata: Asteroidea) in the Patagonian Argentinian deep sea, including seven new records: Connectivity with sub-Antarctic and Antarctic fauna. *Polar Biology* 45(7): 1211–1228.

Koehler, R. 1907. Asteries, Ophiures et Echinides recueillis dans les mers australes par la "Scotia" (1902–1904). *Zoologischer Anzeiger* 32(6): 140–147.

Koehler, R. 1920. Echinodermata: Asteroidea. *Scientific Reports of the Australasian Antarctic Expedition* C8: 1–308.

Koehler, R. 1923. Astéries et Ophiures recueillies par l'Expédition Antarctique Suédoise (1901–1903). *Further Zoological Results of the Swedish Antarctic Expedition 1901–1903 under the direction of Dr. Otto Nordenskjöld* 1(1): 1–145.

Lamarck, J.B. 1801. *Système des animaux sans vertèbres, ou tableau général des classes, des ordres et des genres de ces animaux; Présentant leurs caractères essentiels et leur distribution, d'après la considération de leurs rapports naturels et de leur organisation, et suivant l'arrangement établi dans les galeries du Muséum d'Histoire Naturelle, parmi leurs dépouilles conservées; Précédé du discours d'ouverture du Cours de Zoologie, donné dans le Muséum National d'Histoire Naturelle l'an 8 de la République*. Paris, viii + 432 pp.

Leske, N.G. 1778. *Jacobi Theodori Klein naturalis dispositio echinodermatum . . .*, edita et descriptionibus novisque inventis et synonymis auctorem aucta. Addimenta ad I.T. Klein naturalem dispositionem Echinodermatum. G.E. Beer, Leipzig, xxii + 278 pp.

Lyman, T. 1878. Ophiurans and Astrophytons. Reports on the dredging operations of the US Coast Survey Str. "Blake". *Bulletin of the Museum of Comparative Zoology* 5(9): 217–238, 3 pls.

Linnaeus, C. 1758. *Systema Naturae per regna tria naturae, secundum classes, ordines, genera, species, cum characteribus, differentiis, synonymis, locis.* [The system of nature through the three kingdoms of nature, according to classes, orders, genera, species, with characters, differences, synonyms, places.]. Impensis Direct. Laurentii Salvii. Holmiae [Stockholm]. 1(10): [iii], 824 pp.

Ljungman, A.V. 1865. Tillägg till kännedom af Skandinaviens Ophiurider. Öfversigt *af Kgl. Vetenskaps-Akademiens Förhandlingar* 1863. 21(7): 359–367, pl. XV.

Ljungman, A.V. 1867. Om nagra arter of Ophiurider. Öfversigt *af Kgl. Vetenskaps-Akademiens Förhandlingar* 1866: 153–166.

Lyman, T. 1879. Ophiuridae and Astrophytidae of the "Challenger" expedition. Part II. *Bulletin of the Museum of Comparative Zoology at Harvard College, Cambridge, Mass.* 6(2): 17–83, 10 pls.

Mah, C., K. Neill, M. Eléaume & D. Foltz. 2014. New species and global revision of *Hippasteria* (Hippasterinae: Goniasteridae; Asteroidea; Echinodermata). *Zoological Journal of the Linnean Society* 171(2): 422–456.

Martynov, A.V., & N.M. Litvinova. 2008. Deep-water Ophiuroidea of the northern Atlantic with descriptions of three new species and taxonomic remarks on certain genera and species. *Marine Biology Research* 4(1–2): 76–111.

Matsumoto, H. 1915. A new classification of the Ophiuroidea: with descriptions of new genera and species. *Proceedings of the Academy of Natural Sciences of Philadelphia* 67:43–92.

Mortensen, T. 1925. On a small collection of echinoderms from the Antarctic Sea. *Arkiv för Zoologie* 17A(31): 1–12.

Mortensen, T. 1933. Echinoderms of South Africa (Asteroidea and Ophiuroidea). Papers from Dr. Th. Mortensen's Pacific Expedition 1914–16. *Videnskabelige Meddelelser fra Dansk Naturhistorisk Forening* 93(65): 215–400.

Müller, O.F. 1776. *Zoologiae Danicae prodromus, seu Animalium Daniae et Norvegiae indigenarum: characteres, nomina, et synonyma imprimis popularium.* Typis Hallagerii, Havni, Copenhagen, 282 pp.

Müller, J., & F.H. Troschel. 1842. *System der Asteriden. 1. Asteriae. 2. Ophiuridae.* Vieweg: Braunschweig. xxx + 134 pp., 12 pls.

Parelius, J. 1768. Beskrivelse over Nogle Korstrold. *Kongelige Norske Videnskabers Selskab Skrifter* 4: 423–428, pl.

Parodiz, J.J. & E. Balech. 1992. *El Museo Argentino de Ciencias Naturales "B. Rivadavia" ... en pantuflas* (2nd ed. 2023, comentarios de A. Tablado; Manuel G. Quintana). Ciudad Autónoma de Buenos Aires, Fundación de Historia Natural Félix de Azara, 174 pp.

Pawson, D.L., & J.E. Miller. 1983. Systematics and ecology of the sea urchin genus *Centrostephanus* (Echinodermata: Echinoidea) from the Atlantic and Eastern Pacific Oceans. *Smithsonian Contributions to the Marine Sciences* 20: 1–15.

Perrier, E. 1875. Révision de la collection de stellérides du Muséum d'Histoire Naturelle de Paris. Paris: Reinwald, 384 pp.

Perrier, E. 1881. Report on the results of dredging in the Gulf of Mexico and in the Caribbean Sea, 1877–79, by the United States Coastal Survey Steamer Blake. 14. Description sommaire des espèces nouvelles d'Astéries. *Bulletin of the Museum of Comparative Zoology* 9: 1–31.

Perrier, E. 1891. Echinoderma I. Stellérides. *Mission Scientifique du Cap Horn, 1882–83. 6. Zoologie* (3), Paris, 198 pp.

Peters, W. 1855. Über die an der Küste von Mossambique beobachteten Seeigel und insbesondere über die Gruppe der Diademen. *Abhandlungen der Königlich Preussischen Akademie der Wissenschaften* 1854: 101–119.

Philippi, R.A. 1837. Ueber die mit *Asterias auranciaca* verwandten und verwechselten Asterien der Sicilianischen Küste. *Archiv für Naturgeschichte* 3: 193–194.

Philippi, R.A. 1845. Beschreibung einiger neuer Echinodermen nebst kritischen Bemerkungen über einige weniger bekannte Arten. *Archiv für Naturges-*

chichte 11: 344–359.

Rivadeneira, P.R., M.I. Martinez, P.E. Penchaszadeh & M.I. Brogger. 2020. Reproduction and description of a new genus and species of deep-sea asteriid sea star (Echinodermata; Asteroidea) from the southwestern Atlantic. *Deep Sea Research Part I: Oceanographic Research Papers* 163: 103348.

Romanelli, M.V., & A. Tablado. 2011. *Leptychaster kerguelenensis* (Echinodermata: Asteroidea) from Southwest Atlantic: Redescription and geographic distribution. *Zootaxa* 2971(1): 59–68.

Rowe, F.W.E., & A.M. Clark. 1975. *A catalogue of recent and fossil sea stars (Asteroidea) in the collections of the British Museum (Natural History).* London, British Museum (Natural History), 694 pp.

Sars, M. 1866. Om arktiske Dyreformer i Christianiafjorden. *Forhandlinger i Videnskabs-Selskabet i Christiania* 1865: 196–200.

Say, T. 1825. On the species of the Linnaean genus *Asterias* inhabiting the coast of the United States. *Journal of the Academy of Natural Sciences of Philadelphia* 5(1): 151–154.

Sladen, W.P. 1882. The Asteroidea of H.M.S. Challenger Expedition, pt. 1. Pterasteridae. *Journal of the Linnean Society of London* 16: 189–246.

Sladen, W.P. 1889. Report on the Asteroidea. *Report on the Scientific Results of the Voyage of H.M.S. Challenger during the years 1873–1876. Zoology* 30 (part 51): xlii + 893 pages, 118 plates.

Smith, E.A. 1876. Descriptions of species of Asteridae and Ophiuridae from Kerguelen Islands. *Annals and Magazine of Natural History* 4th series, 17: 105–113.

Stimpson, W. 1857. On the Crustacea and Echinodermata of the Pacific shores of North America. *Boston Journal of Natural History* 6: 444–532, pls. 18–23.

Studer, T. 1876. Echinodermen aus dem antarktischen Meere und zwei neue Seeigel von den Papua-Inseln, gesammelt auf der Reise S.M.S. Gazelle um die Erde. *Monatsbericht der königlich preussischen Akademie der Wissenschaften zu Berlin* 452–465.

Tablado, A., & Venerus, L.A. 2000. Catálogo de ejemplares tipo de la División Invertebrados del Museo Argentino de Ciencias Naturales. I. Porifera, Cnidaria, Mesozoa, Platyhelminthes, Nemertinea, Rotifera, Nematomorpha, Nematoda, Bryozoa, Annelida, Crustacea y Echinodermata. *Revista del Museo Argentino de Ciencias Naturales "Bernardino Rivadavia"* 2: 203–236.

Tommasi, L.R. 1966. Distribuição geográfica de alguns equinodermas do Brasil. *Revista Brasileira de Biologia* 26(3): 239–246.

Tommasi, L.R. 1971. Equinodermes do Brasil. I. Sobre algumas novas espécies e outras pouco conhecidas, para o Brasil. *Boletim do Instituto Oceanográfico, São Paulo* 20: 1–21.

Verrill, A.E. 1880. Notice of the remarkable marine fauna occupying the outer banks off the southern coast of New England. *American Journal of Science* 3(20): 390–403.

Verrill, A.E. 1899. Revision of certain genera and species of starfishes, with descriptions of new forms. *Transactions of the Connecticut Academy of Arts and Sciences* 10(1): 145–234.

Walenkamp, J.H.C. 1976. The asteroids of the coastal waters of Surinam. *Zoologische Verhandelingen* 147(1): 3–89.

Wyville Thomson, C. 1873. *The depths of the sea.* Macmillan, London, 527 pp.

Doi: 10.22179/REVMACN.27.913

Recibido: 24-I-2025
Aceptado: 25-I-2025