

Four minor museums in Tuscany originated from correspondents of the "Inchiesta Ornitologica"

Filippo Ceccolini

Via Europa 16/A, I-52016 Rassina (AR). E-mail: ceccolinif@virgilio.it

Stefania Lotti

Fondazione Scienza e Tecnica, Via Giuseppe Giusti, 29. I-50121 Firenze. E-mail: scienze@fstfirenze.it

ABSTRACT

The present research deals with four minor museums in Tuscany which took their origin from private bird collections established in the second half of the 19th century and linked to the "Inchiesta Ornitologica" [Ornithological Inquiry] of Enrico Hillyer Giglioli: the Beni Collection (by Carlo Beni, from the district of Casentino, Arezzo), the Gragnani-Rontani Collection (by Raimondo Gragnani, from the district of Massaciuccoli, Lucca), the Lensi Collection (by Adolfo Lensi, from the district of Fucecchio, Firenze) and the Panciatichi Paulucci Collection (by Marianna Panciatichi Ximenes d'Aragona Paulucci, from the district of San Gimignano, Siena). The four collectors provided abundant information about their areas, later published in the "Resoconti" (a series of periodic reports which were compiled by all the correspondents). Considering their typically local peculiarity and thanks to their wide representativeness, these collections supply an exhaustive picture of the bird species present in the territories covered by these ornithologists at the end of the 19th century.

Key words:

Ornithological Inquiry, Beni Ornithological Collection, Gragnani-Rontani Ornithological Collection, Lensi Ornithological Collection, Panciatichi Paulucci Ornithological Collection.

RIASSUNTO

I musei ornitologici toscani nati da collezioni di corrispondenti dell'Inchiesta Ornitologica

Con il presente lavoro vengono illustrate le quattro realtà museali presenti in Toscana che si sono originate da collezioni ornitologiche private sorte nella seconda metà dell'Ottocento e allestite da personaggi legati all'Inchiesta Ornitologica di Enrico Hillyer Giglioli: la collezione Beni (di Carlo Beni, dal distretto del Casentino, Arezzo), la collezione Gragnani-Rontani (di Raimondo Gragnani, dal distretto di Massaciuccoli, Lucca), la collezione Lensi (di Adolfo Lensi, dal distretto di Fucecchio, Firenze) e la collezione Panciatichi Paulucci (di Marianna Panciatichi Ximenes d'Aragona Paulucci, dal distretto di San Gimignano, Siena). I quattro collezionisti raccolsero molte informazioni sui loro territori, in seguito pubblicate nei Resoconti (una serie di periodici compilati dai vari corrispondenti dell'Inchiesta). Dato il loro carattere prevalentemente locale e grazie alla loro ampia rappresentatività, queste collezioni forniscono un quadro esauriente delle specie ornitiche presenti alla fine del XIX secolo nei territori di azione di questi ornitologi.

Parole chiave:

Inchiesta Ornitologica, Collezione Ornitologica Beni, Collezione Ornitologica Gragnani-Rontani, Collezione Ornitologica Lensi, Collezione Ornitologica Panciatichi Paulucci.

INTRODUCTION

The present paper deals with four minor museums in Tuscany which took origin from privately owned collections mainly established in the second half of the 19th century and connected with the "Inchiesta Ornitologica" [Ornithological Inquiry] set up by Enrico Hillyer Giglioli (1845-1909), professor of Zoology and Compared Anatomy of the "Istituto di Studi Superiori Pratici e di Perfezionamento del Museo di Fisica e di Storia Naturale" in Florence. In 1886 Giglioli published "Avifauna Italica" (Giglioli, 1886) where instructions for bird surveyors in the field were pro-

vided, later sending pre-printed questionnaires to be filled with the required information by his correspondents. In such a way Giglioli covered all the national territory and accumulated a great number of data, which he condensed in two "Resoconti" published in four volumes (Giglioli, 1889, 1890, 1891, 1907); thus he managed to obtain a complete picture of the Italian avifauna of his time (Barbagli & Violani, 1996, 2002). The interest derived from this nationwide investigation influenced many local naturalists who were sometimes designated by Giglioli as official correspondents. Consequently, they felt urge to study

avifaunas and, when possible, to improve their own collections. Unlike many of the nuclei which were later incorporated into important museums—for instance, the Arrighi Griffoli Collection, now preserved in the Museum of Natural History in Florence (Nistri & Barbagli, 1999) and the Ettore Arrigoni degli Oddi Collection, now preserved in the Museum of Zoology in Rome (Barbagli et al., 1996a)—these four collections represented the basis for the starting of specific and local institutions.

The first collection concerns the “Museo del Bosco e della Montagna” in Stia (Arezzo), which includes a nucleus of stuffed birds collected by the lawyer and notary Carlo Beni (1849-1932). This eclectic gentleman, besides holding some political positions (he was mayor of Stia and provincial councillor of Arezzo for almost 30 years), devoted himself widely to the historical, cultural and naturalistic aspects of Casentino, a portion of Tuscany from where the majority of the specimens in his collection originated as well as where he was born and lived.

The second collection, now located at the “Opificio ‘La Brilla’” at Quiesa (Lucca), derived from the collection of Raimondo Gragnani (1850-1933) and Gustavo Rontani (1921-2017). Raimondo Gragnani worked for the Spada counts, in whose villa in Quiesa, near the Massaciuccoli lake, he curated their ornithological collection. When the last member of the Spada family died in 1880, he inherited the collection, which he cured and increased during the rest of his lifetime. The collection then passed, through his nephew, to Gustavo Rontani, who contributed to increase it to its current size.

The third one is the collection of the “Museo Civico e Diocesano di Fucecchio” (Florence), derived from the collection of Adolfo Lensi (1855-1930), a surgeon and medical doctor with a strong passion for Natural Sciences. This hobby induced him to collect and prepare the birds shot in the farmland around his estate and in the marshy area near Fucecchio.

Last, but not least, is the collection housed at the Ornithological Museum of San Gimignano (Siena), assembled by the marquise Marianna Panciatichi

Ximenes d'Aragona Paulucci (1835-1919), which is mainly formed by birds captured on her estate, Villa del Monte at San Gimignano. It documents one of her many interests in natural history which she developed and which led her to become the only prominent female figure in the scientific and collecting entourage of the 19th century in Italy.

Besides the impulse created by the Ornithological Inquiry, it is the high degree of territorial specificity which joins the four collections and makes them truly interesting as a precious historical evidence of bird communities from well defined geographical territories, some of which have recently been deeply transformed or destroyed.

Considering their prevailing local features and thanks to their wide representativeness, these collections give a comprehensive picture of the bird species present in Casentino, in the Massaciuccoli and Fucecchio areas (two of the most significant marshy areas in Tuscany) and in San Gimignano at the end of the 19th century. Their data, still useful today as a starting point for synthetical studies on these areas, are therefore excellent for comparing and evaluating the distribution changes of the species which occurred during the last centuries.

BENI COLLECTION

Carlo Beni conducted his collecting activity along with his study of the local avifauna and his participation to the “Inchiesta Ornitologica” for which he was an energetic correspondent for the Casentino district, and where he published some contributions in the “Resoconti” of 1890 and 1891 (see Giglioli 1890, 1891). His very commitment in the project, besides starting direct contacts with Giglioli, was a wide stimulus for the acquisition of specimens and the increase in numbers of his collection. The compendium of his work on the cultural, historical and naturalistic aspects of his home valley was the “Guida del Casentino”, published in 1881; a second edition appeared in 1889 (Beni, 1881, 1889). This guide book was a fundamental point of reference for the knowl-

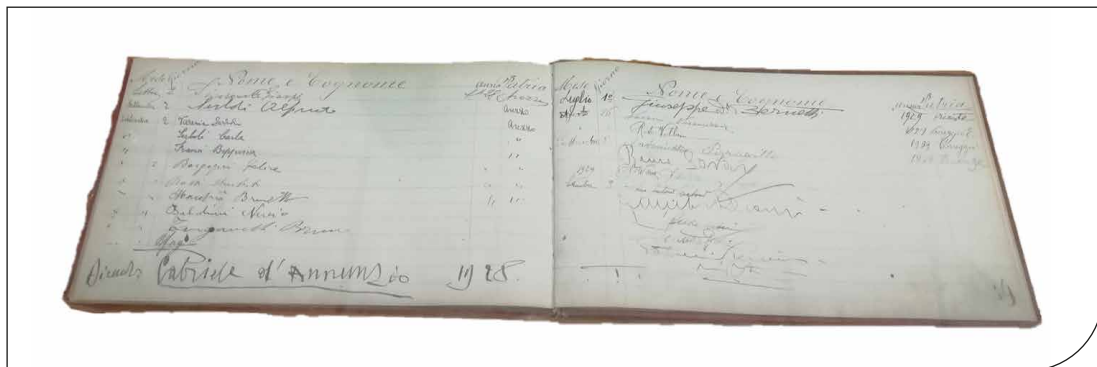


Fig. 1. The visitor's notebook signed by Gabriele D'Annunzio in December 1928 (photo F. Ceccolini).



Fig. 2. A view of a room devoted to the Beni Ornithological Collection in the “Museo del Bosco e della Montagna” in Stia (Arezzo) in a photo in 2021 (photo F. Ceccolini).

edge of the local territory, and particularly in the second edition. Beni gave a great emphasis to the book section on the vertebrate fauna (mainly birds), listing the different species and marking those also present in his private collection with an asterisk.

The Collection, originally located in the premises of the “Iemon-house” annexed to the “Palagio Fiorentino” in Stia and which also had Gabriele D’Annunzio among its visitors (fig. 1), is now hosted in the “Museo del Bosco e della Montagna”, in a particular section built for this collection (fig. 2). In 1889 it counted “more than 550 bird specimens” (Beni, 1889), prepared and identified by Carlo Beni himself. Only 520 specimens pertaining to 176 taxa are now extant, even if an individual of Common Buzzard (*Buteo buteo*) does not seem to belong to the original collection (Tellini Florenzano, 1997). Unfortunately the original registers relative to the collection have been lost and, therefore, it is not possible (apart from a few exceptions) to extract precise collecting data for each individual bird. Labels with scientific names of the birds are still glued on many stands and sometimes the name of the supplier is also given.

About ten nesting species represented in the collection are no longer present in the Casentino area, while eight new ones have arrived since the times when the collection was started (Lapini & Tellini, 1996). Particularly interesting are two specimens of the Slender-billed Curlew (*Numenius tenuirostris*) (fig. 3), a taxon now extinct—still classified as CR in the IUCN list (BirdLife International, 2018, see

website 1), but recently declared globally extinct with a 96.0% probability by Graeme et al. (2025)—and two White-backed Woodpeckers (*Dendrocopos leucotos*), among the few birds collected on the Northern Apennines, where the species has now disappeared (Boano et al., 2019; Bricchetti & Fracasso, 2020).



Fig. 3. The two specimens of Slender-billed Curlew (*Numenius tenuirostris*) in the Beni Ornithological Collection (photo F. Ceccolini).

GRAGNANI-RONTANI COLLECTION

The Collection arose around 1870 thanks to the counts Luigi and Cesare Spada, who used for hunting purposes the villa of Quiesa, near Massarosa, carrying out hunting trips to Lake Massaciuccoli and its immediate surroundings (Tomei, 1977). Raimondo Gragnani, a local naturalist and taxidermist employed by them, was charged with the preparation of the most characteristic specimens collected; he personally took care of the collection, which he inherited in 1880, when the last member of the Spada family died. Thanks to the hunting activity carried out since he was young and thanks to the ornithological notions he received at just 18 years of age from Giglioli himself during his apprenticeship at the Natural History Museum of Florence, Gragnani was an expert on the local avifauna and became a passionate authority among various ornithologists.

As correspondent of the "Inchiesta Ornitologica" for the district of Massarosa and Viareggio (Giglioli, 1890, 1907), he provided much of the historical ornithological data of Versilia (Barbagli & Violani, 2002). Thanks to his skill in the field of taxidermy, learnt in the Florentine museum from Riccardo Magnelli, he had several commissions for ornitho-

logical preparations assigned to various Italian museums and the main private collections of the time (Moltoni, 1933).

The collection of Quiesa quickly became known for the rarities it contained and, although composed almost completely of specimens collected in the area of Lake Massaciuccoli, it came to include several hundreds of specimens, representing 285 species of birds (Tomei, 1977).

Recently restored, it is now visible to the public in the premises of the factory "La Brilla" in Quiesa, an ancient building initially intended for the "polishing" of rice and now converted into a multipurpose space (fig. 4).

The collection numbers 625 birds (Tomei, 1977), including a specimen of the nowadays globally extinct Slender-billed Curlew (fig. 5), three specimens of Baillon's Crake (*Zapornia pusilla*), one of which is a *pullus* (fig. 6) collected in 1886 testifying the nesting of this species in the area of Lake Massaciuccoli at the time—today the Baillon's Crake is no longer a nesting species in Italy (Brichetti & Fracasso, 2018)—and three specimens of Aquatic Warbler (*Acrocephalus paludicola*), a species globally decreasing (BirdLife International, 2022, see website 2) and an uncommon migrant to Italy (Brichetti & Fracasso,



Fig. 4. A view of one of the two rooms devoted to the Gragnani-Rontani Ornithological Collection in the "Antico Opificio 'La Brilla'" in Quiesa (Lucca) in a photo in 2024 (photo F. Ceccolini).



Fig. 5. The specimen of Slender-billed Curlew (*Numenius tenuirostris*) in the Gragnani-Rontani Ornithological Collection (photo F. Ceccolini).

2020). Particularly interesting is also a specimen of Terek Sandpiper (*Xenus cinereus*) collected in 1883 and reported by Giglioli in the "Inchiesta Ornitologica" (Giglioli, 1890, 1907). One of the most typical aspects of the collection is the abundance of birds with plumage anomalies like leucism (fig. 7), particularly sought after at the time.



Fig. 6. The pullus of Baillon's Crake (*Zapornia pusilla*) in the Gragnani-Rontani Ornithological Collection (photo F. Ceccolini).



Fig. 7. Three leucistic specimens in the Gragnani-Rontani Ornithological Collection. From left to right: Eurasian Blackcap (*Sylvia atricapilla*), European Stonechat (*Saxicola rubicola*), Common Reed Bunting (*Emberiza schoeniclus*) (photo F. Ceccolini).

LENSI COLLECTION

The Collection is almost exclusively composed of birds (but also includes a few fossils, some mammals, insect nests, plants, rocks and shells). Up to 1978 it was kept in the premises of the Lensi family, near the Villa di Tricolle at Ponte a Cappiano; after being acquired by the Fucecchio Municipal Administration it was moved into the municipal premises. Recently it was merged with the "Museo Civico e Diocesano di Fucecchio" where, after an operation of conservative restoration, it presently forms a specific section of the museum complex (fig. 8).

Today there are 296 specimens, 249 of which have indications of collecting localities (Lotti et al., 2009). The Lensi collection was started in 1876, but gained its strictly local connotation only in the 1880s, as the first specimens to arrive were from the Pisa territory (Barbagli & Nistri, 2009). An albino nestling of Reed Warbler (*Acrocephalus scirpaceus*), collected in 1882 by hand because of a complete atrophy of the eyeballs (see Giglioli, 1891), does represent the first of many specimens deriving from the Fucecchio area (Barbagli & Nistri, 2009). A strong commitment to the collection enrichment was given by the "Inchiesta Ornitologica", which Lensi joined enthusiastically and later became one of the most active correspondents from the Tuscany area (see Giglioli, 1890, 1891). His observations, combined with those of Italo Turchetti-Centofanti, have contributed to making the Fuce-

cchio area one of the few Italian districts with an almost complete overview of the avifauna. Starting from 1884, the Collection was regularly enriched with birds almost exclusively from Tuscany; the territory where Lensi lived is represented by a number of specimens equal to three fifths of the total.

The sharp predominance of birds with such provenance makes the collection very interesting from the historical and scientific point of view as a precious testimonial of the past local bird richness. Among the water birds, there are some interesting species found for the area: e.g. a specimen of Baillon's Crake (*Zapornia pusilla*) (fig. 9), collected in the marshland where it is now extinct (Barbagli et al., 1996b) and two specimens of Ferruginous Duck (*Aythya nyroca*) (fig. 10) collected in 1885 and in 1892. This last species was so common in the marshland during the 19th century that it gave the name to the local harbour "Porto delle morette" but now it is observed only during the migration periods (Barbagli et al., 1996b; Melega, 2007). Well represented is the Florence area too, where Lensi practised medicine for some years, and where he could easily exchange or acquire birds with other well-known collectors or taxidermists who lived in the city area. Fairly numerous are the specimens from Sardinia, probably thanks to a local contact, where from he could obtain some species difficult to find or to observe; e.g. the Purple Swamphen (*Porphyrio porphyrio*), represented



Fig. 8. A view of a room devoted to the Lensi Ornithological Collection in the "Museo Civico e Diocesano di Fucecchio" in Fucecchio (Firenze) in a photo dating from 2007 (photo F. Ceccolini).

in the collection by two individuals caught in January 1941, the Griffon Vulture (*Gyps fulvus*) and the Flamingo (*Phoenicopterus roseus*).

Lensi finished his commitment to the Ornithological Inquiry, which yielded a large improvement to his own collections and also an important contribution of notes and observations published in the three volumes dedicated to the first report of results of the Giglioli's project (Giglioli, 1889, 1890, 1891). Lensi slowed down his collecting activity and interrupted it in 1901. An exception is the purchase of about 20 specimens in 1913, 1914 and 1916, made through Sardinian contacts or visits to the Florentine market. A male of Alpine Accentor (*Prunella collaris*) collected in January 1923 on the top of Montalbano (near the Padule di Fucecchio), was the last single contribution to his collection (see Lotti et al., 2009).

PANCIATICH I PAULUCCI COLLECTION

Although the marquise Marianna Panciatichi Ximenes d'Aragona married Paulucci became a prominent authority in the malacological field, she was interested in many branches of Natural Sciences (Barbagli & Santacroce, 2022). Regarding ornithology, her activity also included the collecting of birds and the study of local avifauna.

The first step of the birth of her collection was bird-trapping which she began practising in 1880, at the "paretaio" located in her Villa del Monte estate, near Certaldo (municipality of San Gimignano). Originally created with the aim of facilitating the identification of the species of captured birds, the collection grew rapidly between 1886 and 1889, in connection with the gathering of data for the Ornithological Inquiry (Barbagli & Nistri, 2002). She was an active correspondent for the district of San Gimignano (Paulucci & Marri, 1890). A strong impulse towards bird studying and collecting was also influenced by the marriage of her niece to the ornithologist Ettore Arrigoni degli Oddi (1867-1942). Her grandson-in-law gave her many valuable specimens from his own rich collection kept in Monselice (Padua) (Arrigoni degli Oddi, 1908), such as, for instance, the first Yellow Breasted Bunting (*Emberiza aureola*) captured in Tuscany, which formed the subject of a paper published in the journal "Avicula" (Arrigoni degli Oddi, 1906). Her last specimen dates from 1911, after about 30 years of activity. An individual of Slender-billed Curlew caught at Massaciuccoli in September 1900 is also worth mentioning.

Precision, good taste and exactitude marked the career of the marquise as a keen collector. She assembled up to 1,260 specimens (Massi, 1994), 67% of which were captured in Tuscany, even if many others came from different Italian regions (Veneto, Lombardy, Apulia) as a consequence of presents made by



Fig. 9. The specimen of Baillon's Crake (*Zapornia pusilla*) in the Lensi Ornithological Collection (photo L. Lupi, property Museo Civico e Diocesano di Fucecchio).

Arrigoni degli Oddi or exchanges with corresponding ornithologists. A small portion of her collection was composed of rare or accidental species from Italy or from the nearby area of Nice in South France, the latter however being geographically considered Italian territory at her time (Barbagli & Nistri, 2002). The Sardinian materials are significantly represented in line with many other bird collections of the time. The capture of peculiar birds, rarely or not found in the rest of Italy, was relatively easy in the isle, more-



Fig. 10. The two specimens of Ferruginous Duck (*Aythya nyroca*) in the Lensi Ornithological Collection (photo L. Lupi, property Museo Civico e Diocesano di Fucecchio).



Fig. 11. The specimen of Eleonora's Falcon (*Falco eleonora*) in the Paulucci Ornithological Collection (photo F. Ceccolini).

over the marquise kept commercial contacts with some able taxidermists on this island, such as the naturalist Pietro Bonomi and the Meloni family; therefore she could acquire 34 specimens of interesting species, such as Eleonora's Falcon (*Falco eleonora*) (fig. 11), Barbary Partridge (*Alectoris barbara*), Marmora's Warbler (*Sylvia sarda*), Audouin's Gull (*Larus audouinii*), Griffon Vulture (*Gyps fulvus*) and Bonelli's Eagle (*Hieraetus fasciatus*). Many of the preparations were made by the famous taxidermist Riccardo Magnelli, who was responsible for mounting numerous birds in the Museum of Natural History in Florence. Among the many stuffed works carried out for the marquise collection, which he considered to be among the most important ones in Tuscany (Magnelli, 1907), there is a single specimen of Mandarin Duck (*Aix galericulata*), a male caught in Leccio in the municipality of Reggello (Florence) in 1902. Marianna presented the bird to the former "Istituto Tecnico Galileo Galilei" in Florence, founded in 1850 by Grand Duke Leopold II (1797-1870) with the name of "Imperiale e Regio Istituto Tecnico Toscano" (Barbagli & Lotti, 2002). This specimen is still housed in the Museum of the "Fondazione Scienza e Tecnica", which preserves the historical heritage of the school. The Florentine museum also includes a rich herbarium gathered by the marquise between 1878 and 1898; it is an additional evidence of the many interests and scientific versatility of this noblewoman in the panorama of the Italian naturalistic studies of the 19th century (Lotti, 2022).



Fig. 12. A view of a the former Church of San Francesco devoted to the Paulucci Ornithological Collection in San Gimignano (Siena) in a photo dating from 2010 (photo F. Ceccolini).

Shortly before her death, the marquise presented her bird specimens to the municipality of San Gimignano (Siena) (Barbagli & Nistri, 2002). The local authorities, after moving the collection several times, established a specific museum for it in the former "Chiesa di San Francesco" (fig. 12). Unfortunately, years of neglect and vicissitudes of the collection through temporary storage have caused serious damages and the disappearance of many specimens by theft, reducing the number of birds now present to just 696 alone.

ACKNOWLEDGEMENTS

We are grateful to Fausto Barbagli (Natural History Museum of the University of Florence) for his valuable advices, to Enrico Arrighini and Giovanni Pensabene (Visitor Center "La Brilla" of Quiesa) for allowing us access and study the Gragnani-Rontani Collection, Andrea Vanni Desideri (Museo Civico e Diocesano di Fucecchio) for allowing us use some photos of the Museo Civico e Diocesano di Fucecchio and to Carlo Violani (formerly at Department of Animal Biology of the University of Pavia) for the linguistic revision.

REFERENCES

- ARRIGONI DEGLI ODDI E., 1906. Note sulla cattura di una *Emberiza aureola*, Pall. in Toscana. *Avicula*, 10: 1-2.
- ARRIGONI DEGLI ODDI E., 1908. Note ornitologiche sulla collezione del Monte, appartenente alla signora Marchesa M. Paulucci. *Atti del reale Istituto Veneto di Scienze, Lettere ed Arti*, 67: 659-677.
- BARBAGLI F., LOTTI S., 2002. Raccolte e studi botanici di Marianna Paulucci. In: Manganelli G., Cianfanelli S. (a cura di), IV Congresso della Società Italiana di Malacologia. Atti della giornata di studi su Marianna Paulucci. Museo di Storia Naturale dell'Università di Firenze, Firenze 4 ottobre 1998. *Lavori della Società Italiana di Malacologia*, 25: 35-39.
- BARBAGLI F., NISTRI A., 2002. Gli interessi ornitologici di Marianna Paulucci. In: Manganelli G., Cianfanelli S. (a cura di), IV Congresso della Società Italiana di Malacologia, Atti della giornata di studi su Marianna Paulucci. Museo di Storia Naturale dell'Università di Firenze, Firenze 4 ottobre 1998. *Lavori della Società Italiana di Malacologia*, 25: 31-34.
- BARBAGLI F., NISTRI A., 2009. La collezione e gli interessi ornitologici di Adolfo Lenzi. In: Vanni Desideri A. (a cura di), La Collezione naturalistica Lenzi del Museo civico di Fucecchio. Edizioni Polistampa, Firenze, pp. 31-57.
- BARBAGLI F., SANTACROCE E. (a cura di), 2022. *Marianna Panciatichi Ximenes d'Aragona Paulucci. L'eredità culturale di una naturalista eclettica*. Accademia Valdarnese del Poggio, Montevarchi (AR), 287 pp.
- BARBAGLI F., VIOLANI C., 1996. L'"Inchiesta Ornitologica" di Enrico Hillyer Giglioli. *Rivista Italiana di Ornitologia*, 65(2): 136-146.
- BARBAGLI F., VIOLANI C., 2002. *Cento brevi biografie di ornitologi italiani*. In: Brichetti P., Gariboldi A.L. (a cura di), *Manuale di ornitologia*. Volume 3. Edagricole, Bologna, pp. 307-330.
- BARBAGLI F., CARLINI R., VIOLANI C., 1996a. Ettore Arrigoni degli Oddi: cenni biografici. In: Foschi U.F., Bulgarini F., Cignini B., Lipperi M., Melletti M., Pizzari T., Visentin M. (a cura di), *Catalogo della collezione ornitologica "Arrigoni degli Oddi" del Museo Civico di Zoologia di Roma*. *Ricerche di Biologia della Selvaggina*, 97: 5-26, 307-310.
- BARBAGLI F., PETRINI R., SPOSIMO P., ZARRI E., 1996b. Check-list degli uccelli del Padule di Fucecchio (Pistoia, Firenze). *Quaderni del Museo di Storia Naturale di Livorno*, 13(1993-94): 69-76.
- BENI C., 1881. *Guida illustrata del Casentino*. Tipografia Niccolai, Firenze, 209 pp. + 16 tavv.
- BENI C., 1889. *Guida illustrata del Casentino. Seconda Edizione*. Tipografia Niccolai, Firenze, 400 pp. + 10 tavv.
- BOANO G., BACCETTI N., BARBAGLI F., BERNONI M., BORGO E., CHIOZZI G., FOSCHI U.F., MARANGONI C., 2019. The Italian specimens of White-backed Woodpecker *Dendrocopos leucotos* in Italian museums. *Alauda*, 87: 33-43.
- BRICHETTI P., FRACASSO G., 2018. *The Birds of Italy*. 1. *Anatidae – Alcidae*. Edizioni Belvedere, Latina, 512 pp.
- BRICHETTI P., FRACASSO G., 2020. *The Birds of Italy*. 2. *Pteroclididae – Locustellidae*. Edizioni Belvedere, Latina, 416 pp.
- GIGLIOLI E.H., 1886. *Avifauna Italiana. Elenco delle specie di uccelli stazionarie o di passaggio in Italia*. Le Monnier, Firenze, VII + 623 pp.
- GIGLIOLI E.H., 1889. *Primo resoconto dei risultati della Inchiesta Ornitologica in Italia. Parte prima. Avifauna Italiana*. Le Monnier, Firenze, VII + 706 pp.
- GIGLIOLI E.H., 1890. *Primo resoconto dei risultati della Inchiesta Ornitologica in Italia. Parte seconda. Avifauna locali*. Le Monnier, Firenze, VIII + 693 pp.
- GIGLIOLI E.H., 1891. *Primo resoconto dei risultati della Inchiesta Ornitologica in Italia. Parte terza ed ultima. Notizie di indole generale*. Le Monnier, Firenze, VII + 518 pp.
- GIGLIOLI E.H., 1907. *Secondo resoconto dei risultati della Inchiesta Ornitologica in Italia. Avifauna Italiana. Nuovo elenco sistematico delle specie di Uccelli stazionarie, di passaggio o di accidentale comparsa in Italia*. Tipografia S. Giuseppe, Firenze, XXIV + 784 pp.
- GRAEME M.B., CHAPPLE B., BERRYMAN A.J., CROCKFORD N., JANSEN J.J.F.J., BOND A.L., 2025. Global extinction of Slender-billed Curlew (*Numenius tenuirostris*). *Ibis*, 167(2): 357-370 (Version of Record online 17 November 2024: <https://doi.org/10.1111/ibi.13368>).

- LAPINI L., TELLINI G., 1996. La collezione ornitologica Carlo Beni di Stia (Toscana) come documento storico dell'avifauna di un territorio. *Quaderni del Museo di Storia Naturale di Livorno*, 13(1993-94): 55-65.
- LOTTI S., 2022. *Le piante del parco di Sammezzano nell'Erbario Paulucci*. In: Barbagli F., Santacroce E. (a cura di), Marianna Panciatichi Ximenes d'Aragona Paulucci. L'eredità culturale di una naturalista eclettica. Accademia Valdarnese del Poggio, Montevarchi (AR), pp. 104-113.
- LOTTI S., NISTRI A., BARBAGLI F., 2009. *La Collezione ornitologica*. In: Vanni Desideri A. (a cura di), La Collezione naturalistica Lensi del Museo civico di Fucecchio. Edizioni Polistampa, pp. 83-121.
- MAGNELLI R., 1907. Delle raccolte ornitologiche toscane. *Avicula*, 11: 94.
- MASSI A., 1994. La collezione ornitologica Paolucci [sic]. *Quaderni del Museo di Storia Naturale di Livorno*, 11(1990): 25-86.
- MELEGA L. (a cura di), 2007. *Piano d'azione nazionale per la Moretta tabaccata (Aythya nyroca)*. Collana "Quaderni di Conservazione della Natura", numero 25. Ministero dell'Ambiente, Istituto Nazionale per la Fauna Selvatica. Compositori Industrie Grafiche, Bologna, 69 pp.
- MOLTONI E., 1933. Necrologio di Raimondo Gragnani. *Rivista Italiana di Ornitologia*, 2(3-4): 230-232.
- NISTRI A., BARBAGLI F., 1999. *La collezione ornitologica "Griffoli" nel Museo "La Specola" di Firenze*. In: Barbagli F., Manganelli G., Spadini V. (a cura di), Giacomo Arrighi Griffoli: un ornitologo lucignanese di fine Ottocento. Tipografia Rossi, Sinalunga (SI), pp. 25-35.
- PAULUCCI M., MARRI E., 1890. *Siena, distretto di San Gimignano*. In: Giglioli E.H., Primo resoconto dei risultati della Inchiesta Ornitologica in Italia. Parte seconda. Avifaune locali. Le Monnier, Firenze, pp. 424-431.
- TELLINI FLORENZANO G., 1997. *La collezione ornitologica "Carlo Beni"*. Editrice Le Balze, Montepulciano (SI), 64 pp.
- TOMEI P.E., 1977. Un prezioso documento sulla avifauna della «Bassa Versilia». La collezione Gragnani-Rontani. *Atti della Società Toscana di Scienze Naturali, Memorie, Serie B*, 83(1976): 93-137.
- Websites (accessed 15.01.2025)**
- 1) IUCN Red List. Slender-billed Curlew, *Numenius tenuirostris*, BirdLife International, 2018
<https://dx.doi.org/10.2305/IUCN.UK.2018-2.RLTS.T22693185A131111201.en>
 - 2) IUCN Red List. Aquatic Warbler, *Acrocephalus paludicola*, BirdLife International, 2022
<https://www.iucnredlist.org/fr/species/22714696/176687364>

Submitted: February 28th, 2025 - Accepted: November 5th, 2025
Published: December 9th, 2025