

## INTRODUCTION

This volume is devoted to Benedetto (Bettino) Lanza, the founder of modern Italian chiropterology and our mentor. Bettino was born in 1924 and his interest in bats dates back to the mid-1950s, when he published one of the first modern synopses of this group. The late Otto von Helversen told one of us (MR) that he was driven to study bats after reading Bettino's book. The new and enlarged edition of this book is now in press. Bettino is also working on a book about Eastern African bats. These books represent just two of the many projects he is currently engaged in.

The strong personality of Bettino is reflected in his work. This is characterized by a thorough search of the available literature to ensure complete documentation, a meticulous ability to write clearly, and exhaustively cover the subject, and a willingness to critique his work and accept the criticism of others in pursuit of the best possible result. His dedication to go above and beyond what most people could accomplish is tempered by his wonderful sense of humor, which has a strong facet of self-mockery that is so typical of Tuscan people, and always makes him delight in his work.

It is not always easy to work with Bettino, because he expects complete devotion to the work from others, just as he does from himself. Anyone who survives this approach will learn much not only about the natural world, but also, which is more important, about himself. We appreciate many of Bettino's characteristics, particularly his keen intellect, his infallible logic and his ability to organize thousands of pieces of information and synthesize these into a great mosaic that is both new and remarkable. His publications are indeed noteworthy and extremely diverse. Once we asked Bettino how the dickens he can do everything and also does it so well. He replied: "Now I am aged, I need less sleep and then can devote more time to my work"!

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## A SUMMARY OF LANZA'S RESEARCH ON MAMMALS

### 1. Ethology

Bat banding in Ostia Antica (Rome) and results of homing experiments (1958).

### 2. Biology of reproduction

The buccal pad, a peculiar structure occurring in some bats of the family Vespertilionidae, was discovered in *Nyctalus noctula* by Mohr (1932), who very briefly described its external appearance. Later on, this structure was *independently* rediscovered in the same species by Harrison & Davies (1949) and in two *Pipistrellus* and *Hypsugo savii* by Lanza (1956), who described its external morphology and histology. The buccal pad is situated in the *vestibulum oris*, close to the mouth commissure and consists of a thickening of the stratified squamous epithelium of the mucous membrane lining the upper labio-gingival fornix; its cells are filled with different quantities of a fatty substance, which, when abundant, gives it a whitish, yellowish or a reddish-orange colour. Lanza later demonstrated (1956; see also 1959 and 1970), mainly with histological techniques, that the buccal pad is a seasonal character in males controlled by the male sex hormone, as it attains its maximum development in rutting males when the *cauda epididymi* is filled with sperm, whereas it is much less developed in females and in males with empty epididymis. Research in the field recently confirmed Lanza's conclusions (2003).

### 3. Taxonomy and systematics

Lanza's studies on the *bacula* of European bats allowed the discrimination of some sibling species, for example *Plecotus auritus* from *Plecotus austriacus* (quoted as *P. wardi*) (1959 and 1960). Studies on the *bacula* of the flying-foxes of the genus *Pteropus* demonstrated that this structure has no phylogenetic value (1963 and 1969).

Research on the postembryonic growth of the skull in the pteropodid genus *Epomophorus* revealed the existence of allometric phenomena that involved the synonymization of at least one species described from juveniles (1961)

Two papers (1963 and 2002) deal respectively with a redescription of the African molossid bat *Nyctinomus aloysiisabaudiae* and the genesis of the erythristic colour phase occurring in some Sardinian specimens of the rhinolophid bat *Rhinolophus mehelyi*.

### 4. Chorology

Notes on the bats living in the «Grotte di Castellana» caves (Bari), with discovery of a species new to the Italian Peninsula (*Rhinolophus mehelyi*) (1959). Lanza documented the occurrence of the Northern bat, *Eptesicus nilssonii*, in Croatia (recently rediscovered in this country!) and published notes on the bat fauna of Petālā Id. (Greece) (1957). Another paper (1968) deals with some bats from Somalia.

### 5. Fauna and biogeography

The first large monograph on Italian Chiroptera was published by Lanza in 1959 and it is still considered one of the best ever appeared on European bats; a new up-to-date edition

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(about 900 pp.) is in press. Some papers (1999, 2000, 2001, 2002) correspond to up-to-date but concise Italian and English editions of the Italian bat fauna.

Other papers (1952, 1961, 1971) deal with Tuscan cave-dwelling bats, southern Italian bats and mammals living in the Apuan Alps (NW Tuscany), respectively (see also «*Chorology*»).

The biogeography of the Italian Chiroptera is treated in the paper published in 1985.

## 6. Parasitology

After publishing a few papers (1950, 1998, 1999), Lanza published the first exhaustive monograph on the ecto- and endoparasites of European bats, also including parasites found on or in specimens collected outside Europe (1999). In this book, based on the analysis of more than 1100 papers, about 756 taxa are cited and briefly treated.

Currently, 42 taxa have been named after Benedetto Lanza: 34 invertebrates (1 genus, 25 species, 7 subspecies, 1 variety) and 8 vertebrates (1 genus, 2 species, 5 subspecies); and 71 taxa have been named by Benedetto Lanza, sometimes with his collaborators: 7 invertebrates (1 genus, 4 species, 2 subspecies) and 71 vertebrates (5 genera, 29 species, 27 subspecies).

## CONTRIBUTIONS TO THE HISTORY OF SCIENCE AND ART

Lanza contributed to the artistic appreciation and scientific understanding of the world famous collection of anatomical waxes housed in the Zoological Section «La Specola» of the Museum of Natural History of the University of Florence (XVII-XIX century) by writing a book in collaboration with Maria Luisa Puccetti Azzaroli, Marta Poggesi and Antonio Martelli (1979; 1997, second revised and up-to-date edition; 1995, English translation of the text, with same additions), and a paper (1984) on the so-called «Decomposable Venus» (1984).

Different subjects are dealt with in various other papers (1991, the zoological collections by Ruggero Tozzi; 1992, zoological and eco-ethological research of the University of Florence in Latin America; 1994 and 1996, the situation of herpetological research in Italy; 1982 and 1987, short notes on the Zoological Section of the Museum of Natural History of the University of Florence; 1993, biological expertise for the restoration and conservation of cultural heritage.

## DICTIONARIES

Lanza coordinated and supervised the writing of the systematic botany and zoology definitions for Devoto & Oli's dictionary of the Italian language, one of the most important ever published; he personally wrote some entries on botany (letters A-C) and the entries on Pisces *sensu lato*, Amphibia, Reptilia and Aves.

Lanza has also been coordinator, supervisor and editor of a large Dictionary of the Animal Kingdom (fossils excluded) of which he personally wrote the general entries, in collaboration with Stefano Vanni, as well as the entries dealing with Platyhelminthes, Gastrotricha, Rotiferi, Nematoda, Nematomorpha, Kinorhyncha, Acanthocephala, Cephalochordata, Cephalaspidomorpha, Pteraspidomorpha, Chondrichthyes, Osteichthyes, Amphibia and Reptilia (1982 and 1985).

## CURRICULUM VITAE

Benedetto Giuseppe Antonio Lanza, usually called «Bettino», medical doctor and amateur-turned-professional naturalist, was born on 24 May 1924 in Florence (Tuscany; Italy). He had a deep boyhood interest in natural history, but studied medicine and received an honorary degree in medicine and surgery. Because of his interest in natural history, he limited his medical practice and instead devoted his life to the study of morphology, anatomy, biology and taxonomy of a number of animal groups, especially amphibians, reptiles, bats, Mollusca Soleolifera and phreaticolous aquatic Crustacea. He was selected as professor of General Biology at the University of Bologna in 1969, elected full professor of General Biology in the Faculty of Mathematics, Physics and Natural Sciences at the University of Florence in 1971, and appointed director of the Zoological Museum «La Specola» of the aforementioned University a year later.

Among his many papers and books he was most prolific in the subjects of herpetology (c. 230 titles), mammalogy (c. 30, mainly on bats; see below), malacology (13, especially on Soleolifera, with the discovery of self-reproduction in Vaginulidae and sperm intramitochondrial glycogen), and stygobiontic Crustacea (4).

**1952-1955** President of the *Gruppo Speleologico Fiorentino del Club Alpino Italiano* (Florentine Cave Group of the Italian Alpine Club).

**1967** (27.IX) Appointed corresponding member of the *Naturforschende Gesellschaft in Basel*.

**1979** Illustrated an issue of a set of four stamps and a souvenir sheet illustrating four species of freshwater fishes endemic to Somalia, one of which - *Pardiglanis tarabinii* Poll, Lanza et Romoli Sassi, 1972 (Siluriformes, Bagridae) - was described by Lanza himself; first case in the history of philately.

**1980**. Elected honorary member of the *Gruppo Speleologico Fiorentino del Club Alpino Italiano* (Florentine Cave Group of the Italian Alpine Club).

**1982** Illustrated an issue of a set of four stamps and a souvenir sheet illustrating four species of Somali snakes, one of which - the endemic Colubridae *Spalerosophis josephscorteccii* Lanza 1966 - was also described by the illustrator himself.

**1985** (20.VIII). Elected by acclamation President of the *Societas Europaea Herpetologica* during the Third Ordinary General Meeting of S.E.H., Prague, Czech Republic (end of his term in office in September 1989).

**1992** Voluntarily resigned as Director of the *Zoological Museum «La Specola» of the University of Florence*. Appointed member of the *Comitato Scientifico e Tecnico dell'Orto Botanico «P. Pellegrini»* (Scientific and Technical Committee of the Botanical Garden «P. Pellegrini») (Apuan Alps; municipality of Massa, province of Massa-Carrara; Tuscany). Appointed member of the *Consiglio Scientifico del «Centro di Studio per la Faunistica ed Ecologia Tropicali» del Consiglio Nazionale delle Ricerche* (Scientific Council of the «Centre for the Study of Tropical Fauna and Ecology» of the National Research Council).

**1993** Unanimously elected provisional President of the *Societas Herpetologica Italica* on the occasion of its foundation, Massa Marittima (Grosseto), 20 February 1993. Unanimously elected President of the *Societas Herpetologica Italica* during the First Ordinary General Meeting of S.H.I., Florence, 12 June 1993. Elected President (9.III) of the *Consiglio Scientifico del «Centro di Studio per la Faunistica ed Ecologia Tropicali» del Consiglio Nazionale delle Ricerche*. Unanimously elected Honorary Member of the *Associazione Teriologica Italiana* [Association of Italian Mammalogists] during the National Meeting of A.T.I., Florence, 3 December 1993.

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**1994** (18.IV). Unanimously elected member of the *Accademia Lunigianese di Scienze «Giovanni Capellini»*, La Spezia.

**1995** (26.VIII). Unanimously elected Honorary Member of the *Societas Europaea Herpetologica* during the Eighth Ordinary General Meeting of *S.E.H.*, Bonn.

**1996** Retired on 31.X.1996, three years before the expiry of his term (31.X.1999). Unanimously elected Honorary Curator of the *Museo di Storia Naturale dell'Università degli Studi di Firenze* (Natural History Museum of the University of Florence).

**1997** Voluntarily resigned as President of the *Societas Herpetologica Italica*. Unanimously elected the first Honorary Member of the *Societas Herpetologica Italica* during the meeting of the *S.H.I.*, Rome, 13 September 1997.

**1999** (11.XII). Unanimously elected Honorary Member of the *Gruppo Italiano Ricerca Chirotteri* (Italian Bat Research Group) during the meeting of the *G.I.R.C.*, Riserva Naturale Orientata di Onferno (Rimini).

**2002** (11.XII). Unanimously elected Corresponding Academic of the Accademia dei Georgofili, Firenze.

Promoter (1966) and member (1966-1988) of the *Gruppo Ricerche Scientifiche e Tecniche Subacquee (Firenze)* [Underwater Scientific and Technical Research Group (Florence)].

## EXPEDITIONS

He participated, often as scientific coordinator, in several expeditions to Egypt (Shadwan Island), Tunisia (Galite Archipelago), Somalia, Ethiopia, Kenya, Zimbabwe, Cuba, Ecuador (Galápagos Islands), Argentina (Patagonia, Tierra del Fuego), France, Italy, Spain, Portugal, Greece (Crete Island), Saudi Arabia (Farasan Islands), Jordan, Yemen Arab Republic, India, and Australia.

## HERBARIUM

The «Herbarium Lanza», of more than 10,500 sheets, is housed in the «Museo Regionale di Scienze Naturali», Turin.

## FAVOURITE HOBBIES

Painting, drawing, piano-accordion, electronic organ, piano.

## ADVISORY BOARDS

Member of advisory boards of *Zeitschrift für Säugetierkunde* (since 1962), *Salamandra (Zeitschrift für Herpetologie und Terrarienkunde)* (1965-1982), *Atti della Società Toscana di Scienze Naturali* (since 1981), *Alytes* (since 1982), *Monitore Zoologico Italiano (Italian Journal of Zoology)* (from 1982 to its closure in 1987), *Animalia* (since 1983), *Hystrix, The Italian Journal of Mammalogy* (since 1985), *Tropical Zoology* (since 1987), *Fauna of Saudi Arabia* (since 1988), *Atti della Società Italiana di Scienze Naturali* (since 1997), *Acta Herpetologica* (since 2006).

## PUBLICATIONS ON MAMMALS

Lanza B. 1946. Reperti paleontologici e paletnologici in due caverne dei dintorni di Sassorosso (Lucca). *Historia Naturalis Roma* 1 (4): 89-91.

Lanza B. 1947. Nota preliminare sulla fauna di alcune grotte dei Monti della Calvana (Firenze). *Atti della Società Italiana di Scienze Naturali e del Museo Civico di Storia Naturale in Milano* 86: 180-184.

- Lanza B. 1948. Esplorazioni speleologiche in Toscana. Le grotte di Bedizzano e di Ritomboli (Alpi Apuane) e la loro fauna. L'Universo, Firenze 28 (5): 529-539, 4 figs.
- Lanza B. 1950. La *Nycteribosca africana* (Walker) nell'Italia peninsulare (Diptera-Pupipara). Memorie della Società Entomologica Italiana 29: 96.
- Frassineti A., Lanza B. 1950. Effetti dell'acetato di desossicorticosterone, della vitamina C e delle due sostanze associate sull'artrite da formalina nel ratto integro. Folia Endocrinologica (Archivio di Endocrinologia Clinica e Sperimentale) 3(6): 903-909, 3 figs
- Lanza B., Frassineti A. 1951. Effetto della vitamina C e del cortisone, somministrati contemporaneamente al desossicorticosterone, sui danni cardiovascolari e renali da questo provocati nei ratti. Bollettino della Società Italiana di Biologia Sperimentale 27(5): 757-759.
- Lanza B., Frassineti A. 1951. Superdosaggio cortisonico e malattie infettive negli animali di laboratorio. Archivio «E. Maragliano» di Patologia e Clinica 6(5): 829-836, 2 pls (with 5 figs).
- Lanza B., Frassineti A. 1951. Notizie e ricerche sulle alterazioni cardio-vascolari e renali provocate dal desossicorticosterone nei ratti e su l'effetto della contemporanea somministrazione di vitamina C e di cortisone. Archivio «E. Maragliano» di Patologia e Clinica 6(6): 1011-1022, 6 unnumbered pls (with 12 figs).
- Marinetti R., Frassineti A., Lanza B. 1951. Anti-istaminici e reazione infiammatoria da formaldeide. Bollettino e Memorie della Società Tosco-Umbro-Emiliana di Medicina Interna 1951(2): 228-233, 3 figs.
- Lanza B. 1952. Nota preliminare sui Chiroterri delle Grotte di Castellana (Bari) e sulla scoperta di una specie nuova per la Penisola Italiana (*Rhinolophus mehelyi*). Rassegna Speleologica Italiana 4(1): 19-20.
- Lanza B. 1952. Speleofauna toscana. II. Mammiferi. Archivio Zoologico Italiano 37: 107-130, 1 pl. (V, with 2 figs).
- Lanza B., Marcucci G. 1953. Note su alcune grotte della Toscana con cenni sulla loro fauna. Rassegna Speleologica Italiana 5(2): 50-58, 6 figs.
- Lanza B. (1956). Sulla presenza in *Pipistrellus* di una speciale formazione epiteliale buccale. Monitore Zoologico Italiano 63 [1955] (4): 285-292, 5 figs.
- Lanza B. 1956. Note sul cuscinetto buccale dei Chiroterri. Bollettino di Zoologia 23(2): 263-273, 4 figs.
- Lanza B. 1957. Su alcuni Chiroterri della Penisola Balcanica. Monitore Zoologico Italiano 65(1-2): 3-6.
- Lanza B. 1958. Inanellamento di Chiroterri nella zona di Ostia Antica (Roma) e risultati di esperienze sul ritorno al luogo di cattura. Doriana, Genova 2(93): 1-8.
- Lanza B. 1959. Anfibi [pp.102-107, figs 136-137, 3 pls (pl. 32 with figs 142-148, colour pl. 38 with figs 178-182, colour pl. 39 with figs 183-185)], Rettili [pp. 107-112, figs 139-144,2 pls (pl. 33 with figs 149-153, colour pl. 40 with figs 190-196)], Chiroterri (p. 127, pl. 46 with fig. 226), Nota bibliografica (p. 264). In: Conosci l'Italia, volume III, La fauna; Milano; Touring Club Italiano; 272 pp., 361 figs, 96 pls (1-96) with 489 figs.
- Lanza B. 1959. Notizie sull'osso peniale dei Chiroterri europei e su alcuni casi di parallelismo morfologico. Monitore Zoologico Italiano 67(1-2): 3-14, 5 figs.
- Lanza B. 1959. Chiroptera Blumenbach, 1774 (pp. 187-473, figs 81-164, 1 unnumbered colour pl. facing p. VIII). In: Toschi A., Lanza B. Fauna d'Italia, vol. IV, Mammalia, generalità, Insectivora, Chiroptera; Bologna; Edizioni Calderini; VIII + 485 pp., 164 figs, 1 unnumbered pl. facing p. VIII.

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- Lanza B. 1960. Su due specie criptiche di orecchione: *Plecotus auritus* (L.) e *P. wardi* Thomas (Mamm.; Chiroptera). *Monitore Zoologico Italiano* 68(1-2): 7-23, 3 figs. [On two sibling species of Long-eared Bats: *Plecotus auritus* (L.) and *P. wardi* Thomas (Mammalia; Chiroptera)].
- Lanza B. 1961. La fauna cavernicola della Toscana. *Rassegna Speleologica Italiana* 13(2): 23-51, 8 figs.
- Lanza B. 1961. Alcune particolarità delle pliche palatine e dell'accrescimento postembrionale del cranio in *Epomophorus* (Mamm.; Megachiroptera). *Monitore Zoologico Italiano* 68 [1960] (3-4): 170-184, 6 figs. [On some characteristics of the palatal ridges and postembryonic growth of the skull in *Epomophorus* (Mamm.; Megachiroptera)].
- Lanza B. 1961. I Chiroterri dell'Italia meridionale. *La Speleologia*, Roma 1(1): 13-17, 3 figs.
- Lanza B., Harrison D.L. 1963. A new description of the type specimen of *Nyctinomus aloysii-sabaudiae* Festa 1907. *Zeitschrift für Säugetierkunde* 28(2): 102-107, 2 figs.
- Lanza B. 1963. Sul *baculum* e sui genitali esterni maschili di *Pteropus* (Mamm. Megachiroptera). *Monitore Zoologico Italiano* 70-71 [1962-1963]: 507-542, 6 figs.
- Lanza B. 1968. A Sciaduà, l'Isola degli Squali, con la Spedizione Mares nel Mar Rosso (ottobre-novembre 1965). *L'Universo*, Firenze 48(5): 804-836, 30 figs.
- Funaioli U., Lanza B. 1968. On some bats from Somalia. *Monitore Zoologico Italiano* (new series) Suppl. 2: 199-202.
- Lanza B. 1969. The baculum of *Pteropus* and its significance for the phylogenesis of the genus (Mammalia, Megachiroptera). *Monitore Zoologico Italiano* (new series) Suppl. III(3): 37-68, 6 figs.
- Lanza B. 1970. In Kenya, da -5 a +5000 m di quota. *L'Universo*, Firenze 50(1): 111-134, (2): 405-428, (3): 601-634, 70 figs.
- Lanza B. 1970. Nota preliminare sulla fauna terrestre dell'isola di Pianosa nel Mar Tirreno (pp. 37-43). In: Società Botanica Italiana & Italia nostra" (Eds.). Parco Nazionale Insulare di Pianosa nel Mar Tirreno [Relazione preliminare presentata al convegno nazionale «Pianificazione Territoriale e Conservazione del Paesaggio Vegetale»; Firenze 19-20 ottobre 1970]. Firenze; Gruppo Ricerche Scientifiche e Tecniche Subacquee; 67 pp., 10 figs, 1 unnumbered map.
- Lanza B., Calloni C. 1970. The buccal pad of *Scotophilus nigrita* (Schreber) and of *Nycticeius hirundo* (De Winton) (Mammalia, Chiroptera, Vespertilionidae). *Monitore Zoologico Italiano* (new series) Supplement III(10): 227-233, 2 figs.
- Lanza B., Azzaroli M. L. 1971. I Mammiferi delle Alpi Apuane. *Lavori della Società Italiana di Biogeografia* (new series) 1 [1970]: 677-714, 10 figs.
- Lanza B. 1972. Il Parco Nazionale dell'Auasc (Scioa, Etiopia). *L'Universo*, Firenze 52(5): 1035-1070, 35 figs.
- Lanza B. 1972. A review (in English) of Bourne G.H. (Ed.) (1969-1970). The Chimpanzee; (1969) Vol. I: anatomy, behavior and diseases of Chimpanzee; XX + 466 pp. ; (1970) Vol. II: physiology, behavior, serology and diseases of Chimpanzee; X + 418 pp.; (1970) Vol. III: immunology, infections, hormones, anatomy and behavior; X + 394 pp.; Basel; S. Karger. *Scientia*, Milano (year LXVI) 107(1-2): 156-157.
- Lanza B. 1972. A review (in English) of Schenkel R., Schenkel-hulliger L. 1969. Ecology and behaviour of the Black Rhinoceros (*Diceros bicornis* L.) (A field study, Mammalia Depicta); Hamburg; Verlag P. Parey; 102 pp. *Scientia*, (year LXVI) Milano 107(5-6): 522.

- Lanza B. (1972). A review (in English) of Bourne G.H. (Ed.) (1971). The Chimpanzee, Vol. IV: behavior, growth and pathology of Chimpanzees; Basel; S. Karger; VIII + 408 pp. Scientia, Milano (year LXVI) 107(7-8): 716-717.
- Lanza B. (1972). A review (in English) of Harrison D.L. 1972. The mammals of Arabia, Vol. III: Lagomorpha, Rodentia; London; E. Benn Ltd; XX + 286 pp. Scientia, (year LXVI) Milano 107(9-10): 900.
- Lanza B. 1972. A review (in English) of Mörzer Bruyns W.F.J. 1971. Field guide of whales and dolphins; Amsterdam; Uitgevareij Tor; 258 pp. Scientia, (year LXVI) Milano 107(9-10): 901.
- Lanza B. 1972. A review (in English) of: MacClintock D. 1971. Squirrels of North America; London; Van Nostrand Reinhold Company; VIII + 184 pp. Scientia, (year LXVI) Milano 107(9-10): 901-902.
- Lanza B. 1972. A review (in English) of: Bourne G.H. (ed.) 1972. The Chimpanzee, Vol. V: histology, reproduction and restraint; Basel; S. Karger; VIII + 274 pp. Scientia (year LXVI) Milano 107(9-10): 902-903.
- Lanza B. 1972. The natural history of the Cerbicale Islands (southeastern Corsica) with particular reference to their herpetofauna. Natura Milano 63(4): 345-407, 26 figs.
- Francini Corti E., Lanza B. 1973. XVIII Congresso della Società Italiana di Biogeografia: note conclusive sulla storia del popolamento animale e vegetale delle isole circumsiciliane. Lavori della Società Italiana di Biogeografia (new series) 3 [1972]: 911-918.
- Lanza B. 1973. A review (in English) of: Thenius E. 1972. Grundzüge der Verbreitungsgeschichte der Säugetiere (eine historische Tiergeographie); Jena; G. Fischer Verlag; X + 346 pp. Scientia (year LXVII) Milano 108(3-6): 421.
- Lanza B. 1973. A review of: Rosenblum L.A. (Ed.) 1970. Primate behavior (developments in field and laboratory research), Vol. 1; New York; Academic Press; XIV + 400 pp. Scientia (year LXVII) Milano (7-8) 108: 633.
- Lanza B. (1973). A review (in English) of: De Vries A., Kochva E. (Eds.) 1971- 1972. Toxins of animal and plant origin; vol. 1 (1971), XVI + 490 pp., vol. 2 (1972), XVI + 330 pp.; London; Gordon & Breach Science Publisher. Scientia (year LXVII) Milano 108 (9-12): 886-887.
- Lanza B. 1973. A review (in English) of: De Beaumont G. 1973. Guide des Vertébrés fossiles; Neuchâtel; Ed. Delachaux et Niestlé; 480 pp. Scientia (year LXVII) Milano 108 (9-12): 888-889..
- Lanza B. 1974. Le Isole Galápagos. Con la Spedizione Mares-G.R.S.T.S. all'Arcipelago di Colombo. L'Universo, Firenze 54(3-4): 509-584, (6): 817-918, 136 unnumbered figs, 1 map.
- Lanza B. 1974. A review (in English) of: Müller P. 1973. The dispersal centres of terrestrial vertebrates in the Neotropical Realm [Series "Biogeographica", vol. 4]; The Hague; Dr. W. Junk B. W., Publishers; VI + 244 pp. Scientia (year LXVIII) Milano 109 (5-8): 549.
- Lanza B. 1974. A review (in English) of: Eaton R.L. 1974. The Cheetah (the biology, ecology, and behavior of an endangered species); London; Van Nostrand Reinhold Company; XVI + 178 pp. Scientia (year LXVIII) Milano 109 (9-12): 869-870.
- Brizzi R., Lanza B. 1975. The natural history of the Macinaggio Islets (northeastern Corsica) with particular reference to their herpetofauna. Natura Milano 66(1-2): 53-72, 8 figs.
- Lanza B. 1977. A review (in Italian and English) of: Prakash I., Ghosh P.K. (Eds.) 1975. Rodents in desert environments [Series: "Monographiae biologicae", vol. 28]; The

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- Hague; Dr W. Junk b. v. Publishers; XVI + 624 pp. Scientia (year LXXI) Milano **112** (1-4): 212-215.
- Lanza B. 1979. Universo in miniatura attorno alla Corsica. Geos Milano [later on the title was changed to Geodes to avoid confusion with the German magazine Geos] 1 (2): 34-51, 14 figs.
- Lanza B. 1980. Flora e fauna terrestri delle Galápagos. Sesto Continente Milano 1(5) [15.XII.1979-15.II.1980]: 96 + 101 + 138-140, 17 figs.
- Lanza B. 1980. Notes on the natural history of some minor Galapagoan islands (pp. 1-40, 40 figs). In: Museo Zoologico dell'Università di Firenze (Ed.) 1982. Galápagos. Studi e ricerche. Spedizione L. Mares-G.R.S.T.S.; Firenze; Gruppo Ricerche Scientifiche e Tecniche Subacquee; 426 pp.
- Lanza B., Colantoni P., Del Monte M., Savelli C. 1981. Note sulla storia naturale delle Isole Galápagos (pp. 1-24, 1 map). In: Museo Zoologico dell'Università di Firenze (Ed.) 1982. Galápagos: Studi e ricerche. Spedizione L. Mares-G.R.S.T.S.; Firenze; Gruppo Ricerche Scientifiche e Tecniche Subacquee, 426 pp.
- Lanza B. (Ed.) 1982. Dizionario del Regno Animale. Milano. Arnoldo Mondadori Editore, 707 pp., 322 figs and groups of figs.]
- Lanza B. (Ed.) 1985. Grande dizionario (707 pp., 322 figs and groups of figs). In: Minelli A., Ruffo S. (Eds.). Enciclopedia del Regno Animale, 7 voll., the 7<sup>th</sup> one corresponding to the «Grande dizionario». Milano; Arnoldo Mondadori Editore.
- Lanza B., Poggesi M. 1986. Storia naturale delle isole satelliti della Corsica. L'Universo, Firenze 66(1): 1-198, 126 figs, 49 maps.
- Lanza B. 1988. Firenze e la Somalia: il perché di una mostra [(pp. 16-18, 1 fig. (n. 2)]. Didascalie 16-17 (pp. 37-38) and 87 (p. 42) (in: Bartoli Ciruzzi S.; Antropologia, Catalogo del materiale esposto). Statuette e altri oggetti dell'artigianato somalo [pp. 44-47, 6 figs (n. 22-27)]. Zoologia [pp. 77-99, 28 figs(n. 60-87). Cartoline a soggetto zoologico [p. 126-127, 3 figs (n. 111-113). In: Lanza B., Breschi A., Matera E., Setti P. (Eds.). Catalogo della mostra «Firenze e la Somalia», Firenze, 27 settembre-31 ottobre 1988; Firenze; Alinea Editrice, 132 pp., 4 (unnumbered) + 113 figs.
- Baccetti B., Callaini G., Argano R., Biondi M., Cobolli Sbordoni M., Cottarelli V., Mei M., Utzeri C., Vigna Taglianti A., Poggi R., Minelli A., Bologna M., Osella G., Manicastri C., Lanza B., Baccetti N. 1991. Zoogeographical expeditions of the C.N.R. ship «Minerva» around the small Circumsardinian islands: a synthesis (pp.521-532). In: Accademia Nazionale dei Lincei (Ed.). International Symposium on Biogeographical Aspects of Insularity. Rome, 18-22 May 1987; Atti dei Convegni Lincei 85, Roma; Accademia Nazionale dei Lincei, VI + 842 pp., figs.
- Lanza B. 1991. Note Faunistiche Sulle Grotte Di Samugheo e Di Asuni, in particolare sul Geotritone *Speleomantes Imperialis*. Faunal notes on the caves of Samugheo and Asuni, and particularly on the cave salamander *Speleomantes Imperialis* (Pp. 67-72, 2 Figs). In: Bartolo G., Muzzetto G.. Il Castello di Medusa: ambiente, leggende, grotte; Cagliari; Guido Bartolo Editore; 94 pp., 54 figs.
- Bartolo G., Lanza B., Meloni S., Secci G., Serrau P. 1995. Sadali. Ambiente, tradizioni,grotte. Oristano; M.C.O. Editrice S'Alvure s.n.c.; 156 pp., 3 (unnumbered) + 22 figs, 13 pls (with 35 surveys of the caves).
- Bartolo G., Zanda G., Secci G., Villani M., Boi I., Carcangiu M., Meloni S., Serrau P., Lanza B. (undated, but surely printed in the first half of 1996). Sadali. Sa Grutta de is Janas. Oristano; M.C.O. Editrice S'Alvure s.n.c.; 16 pp. (cover included), 19 figs.
- Agnelli P., Corti C., Lanza B., Nistri A., Poggesi M., Vanni S. 1996. Ricerche su Anfibi e micromammiferi della Provincia di Firenze. Scopi e risultati preliminari (pp. 373-378)

- In: Calzolai R., Vigni R. (Eds.). Lo stato dell'ambiente in Toscana. Atti della Prima Conferenza Regionale; Firenze 23-25.XI.1995; Firenze; Ed. Regione Toscana; 414 pp., figs.
- Lanza B. 1998. Preliminary data on the parasites of bats belonging to the Italian fauna (p. 23, unnumbered). In: 1° Convegno Italiano sui Chiroteri; Castell'Azzara (Grosseto), 28-29 marzo 1998, Riassunti; 48 unnumbered pp.
- Lanza B. 1999. Prefazione (pp. V-VII). In: Sarà M. (Ed.). Francesco Minà Palumbo; Catalogo dei Mammiferi della Sicilia; terza ed. a cura di Sarà M., Società Messinese di Storia Patria; Messina; XVIII + 186 pp., 5 figs.
- Lanza B., Agnelli P. 1999. Chiroteri, Chiroptera Blumenbach, 1779; [Pp. 27-96]. In: Spagnesi M., Toso S. (Eds.). Pls By Catalano U.; Iconografia dei Mammiferi d'Italia; [Ozzano Emilia (Bologna)]; Istituto Nazionale per la Fauna Selvatica «Alessandro Ghigi» & [Roma]; Ministero dell'Ambiente, Servizio Conservazione Natura; 203 pp., 4 figs, 103 unnumbered maps, 73 colour pls (I-LXXIII) 48.8 x 33.9 cm.
- Lanza B. 1999. Prefazione (Pp. 13-14). In: Dondini G., Papalini O., Vergari S. (Eds. con la collaborazione di Agnelli P., Lanza B.). Atti del 1° Convegno Italiano sui Chiroteri; Castell'Azzara (Grosseto), 28-29 marzo 1998; G. S. «L'Orso»- Castell'Azzara; 360 pp., some figs (unnumbered or numbered in groups), 32 unnumbered colour pls (with 43 figs).
- Lanza B. 1999. Dati Preliminari Sui Parassiti Dei Pipistrelli Appartenenti Alla Fauna D'italia (Mammalia Chiroptera). (Pp. 275-307). In: Dondini G., Papalini O., Vergari S. (Eds. con la collaborazione di Agnelli P., Lanza B.). Atti del 1° Convegno Italiano sui Chiroteri; Castell'Azzara (Grosseto), 28-29 marzo 1998; G. S. «L'Orso»- Castell'Azzara; 360 pp., some figs (unnumbered or numbered in groups), 32 unnumbered colour pls (with 43 figs)
- Lanza B. 1999. I parassiti dei pipistrelli (Mammalia Chiroptera) della fauna italiana. Museo Regionale di Scienze Naturali, Monografie XXX. Torino; Museo Regionale di Scienze Naturali, 320 pp.; 32 figs.
- Lanza B., Agnelli P. 2000. Bats, Chiroptera Blumenbach, 1779 [pp. 27-96]. In: Spagnesi M., Toso S., De Marinis A.M. (Eds. of the book) & Spagnesi M., Toso S. (Eds. of the plates), pls by Catalano U. Italian mammals; [Ozzano Emilia (Bologna)]; Istituto Nazionale per la Fauna Selvatica "Alessandro Ghigi" & [Roma]; Ministero dell'Ambiente, Servizio Conservazione Natura; 203 pp., 4 figs, 103 unnumbered maps, 73 colour pls (I-LXXIII) 48.8 x 33.9 cm.
- Lanza B., Mucedda M., Agnelli P. 2002. On the orange Sardinian *Rhinolophus mehelyi* Matschie 1901 (Mammalia Chiroptera Rhinolophidae. Bollettino del Museo Regionale di Scienze Naturali, Torino 19(2): 427-432, 2 figs.
- Lanza B., Agnelli P. 2002. [pp.45-157]. In: Spagnesi M., Toso S., De Marinis A.M. (Eds.), pls by Catalano U. Iconografia dei Mammiferi d'Italia – Italian mammals; Versione aggiornata dell'opera originale, Up-to-date edition of the original text: Spagnesi M. & Toso S. (eds); Iconografia dei Mammiferi d'Italia; [Ozzano Emilia (Bologna) & Roma]; Istituto Nazionale per la Fauna Selvatica «Alessandro Ghigi» [Ozzano] & Ministero dell'Ambiente, Servizio Conservazione Natura [Roma]; 344 pp., 4 figs, 103 unnumbered maps, 73 colour pls (I-LXXIII) 48.8 x 33.9 cm.
- Lanza B., Agnelli P. 2002. (Pp. 44-142). In: Spagnesi M., De Marinis A.M. (Eds.). Mammiferi d'Italia [Quaderni di Conservazione della Natura. Numero 14]; [Ozzano Emilia (Bologna) & Roma]; Istituto Nazionale per la Fauna Selvatica «Alessandro Ghigi» [Ozzano] & Ministero dell'Ambiente e della Tutela del Territorio, Direzione

## *Introduction*

- Conservazione Natura [Roma]; 312 pp., 4 figs, many unnumbered colour figs by Umberto Catalano, 104 unnumbered maps.
- Dondini G., Lanza B., Vergari S. 2003. The buccal pad of bats and its seasonal cycle in *Nyctalus leisleri* (Kuhl, 1817) (Mammalia, Chiroptera, Vespertilionidae). *Bollettino del Museo Regionale di Scienze Naturali*, Torino 20(1): 105-117, 5 figs.
- Lanza B. 2004. Modern and precolumbian Latin American material of the «Collezione Etnografica Lanza» collected by Borys Malkin and presented to the Natural History Museum of the University of Florence. *Museologia Scientifica* 19(2): 317-378, 33 figs (12 of them in 6 colour pls).
- Riccucci M., Lanza B. 2008. *Neoromicia* Roberts, 1926 (Mammalia Vespertilionidae): correction of gender and etymology. *Hystrix* It. J. Mamm. 19(2): 175-177.
- Lanza B., Riccuucci M., Funaioli U. 2008. An interesting case of polyodontia in *Epomophorus wahlbergi*, with a review of this dental anomaly in bats (Chiroptera). *Lynx*, 39(1): 109-127, 3 figs.
- Simonetta A., Lanza B. 2009. Le collezioni somale di Mammiferi, Rettili e Anfibi del Museo della Specola - The Somalian collections of mammals, reptiles and amphibians of the La Specola Museum (pp. 229-230). In: Barsanti G., Chelazzi G. (Eds). Il Museo di Storia Naturale dell'Università degli Studi di Firenze, Volume I, Le collezioni della Specola: zoologia e cere anatomiche - The Museum of Natural History of the University of Florencej Volume I, The collections of La Specola: zoology and anatomical waxes; Firenze; Firenze University Press; XVI + 294 pp.
- Lanza B. (in press). Chiroptera, Fauna d'Italia, Mammalia III; Milano; Edizioni Calderini; ca. 900 pp.
- Lanza B., Funaioli U., Riccuucci M. (in prep.). Bats of Somalia and adjacent areas.