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A tribute to a master and friend: Pietro Omodeo (1919–2024)

EMILIA ROTA
Department of Physics, Earth and Environmental Sciences, University of Siena, Siena, Italy
rota@unisi.it; https://orcid.org/0000-0002-8235-6419

FIGURE 1.

Pietro Omodeo has been described as an all-round scholar; a Renaissance man, straightforward and open to the future; one of the last of a golden generation of scientists; a pride of Italian science. Such attributes are easily abused in today's biographies, which is partly justified by the prevalence of mediocrity. However, those who had the privilege of knowing Pietro can testify how appropriate they are in his case.

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FIGURE 2. Pietro Omodeo and his father Adolfo (1889–1946) (Ravello, Amalfi coast, August 11, 1930).

The picture in Figure 1 was taken in May 2022, when Pietro was almost 103 years old. Although he now had poor eyesight and difficulty walking, his mind and memory remained brilliant, and he reasoned and discussed science, philosophy, and social issues in a profound, lively and timely perspective. He died in his bed on a Saturday morning, January 20, 2024. During the night he had recited Carducci's poem "Before San Guido" by heart.

Drawing a complete and vivid portrait of Pietro Omodeo is not an easy task. I am proud and happy to have been close to him on a daily basis for almost forty years, and having experienced his genius, his opinions and his personal vicissitudes, I will try my hand at a few brushstrokes.

As a person, Pietro was a free spirit, a "maverick" in the high meaning of the word, with a good sense of self and competitiveness, but at the same time a noble, generous, sociable and cheerful man. As a scholar, his inspiration came not just from a passion for learning and the joy of discovery, but also from a commitment to having cutting-edge critical knowledge to put at the service of effective practices in society and education. Indeed, Pietro, until his last days, set a valuable example of how to deal competently with attitudes and problems that are inherent in human life, and therefore always relevant.

Pietro had a unique mind, perfectly organized, able to store, process, integrate, and critically return enormous knowledge in the most diverse areas of the scientific and historical-philosophical fields. His intellectual superiority was evident. However, he never appeared pedantic. And although he was at the top of academic hierarchy for so

long, he never posed as a baron. His style, refined and precise, in conversation as in writing, the breadth of topics and their interconnections, the willingness and openness to share his expertise, were so natural that the interlocutor (colleagues, students, technicians, janitors, or anyone else), as much as the reader, was fascinated and almost never intimidated. In his view, the transfer of knowledge should admit no barriers of rank, class, culture or generation.

FIGURE 3. Pietro Omodeo in 1941, shortly after his arrival in Libya.

Underlying Pietro's critical thinking was a strong rationality but also a passionate soul. From his father and from his maternal grandfather Temistocle, a Garibaldian redshirt, he had inherited a "fiercely revolutionary" temperament that boldly rebelled against authoritarianism, falsehood, and injustice, both in life and in science. This has often earned him the dislike and disapproval of those in power. Only at the end did his combativeness give way to age and compassion, to the point of considering some of the offensive tones he had used in defense of evolutionism and Darwinism "outdated".

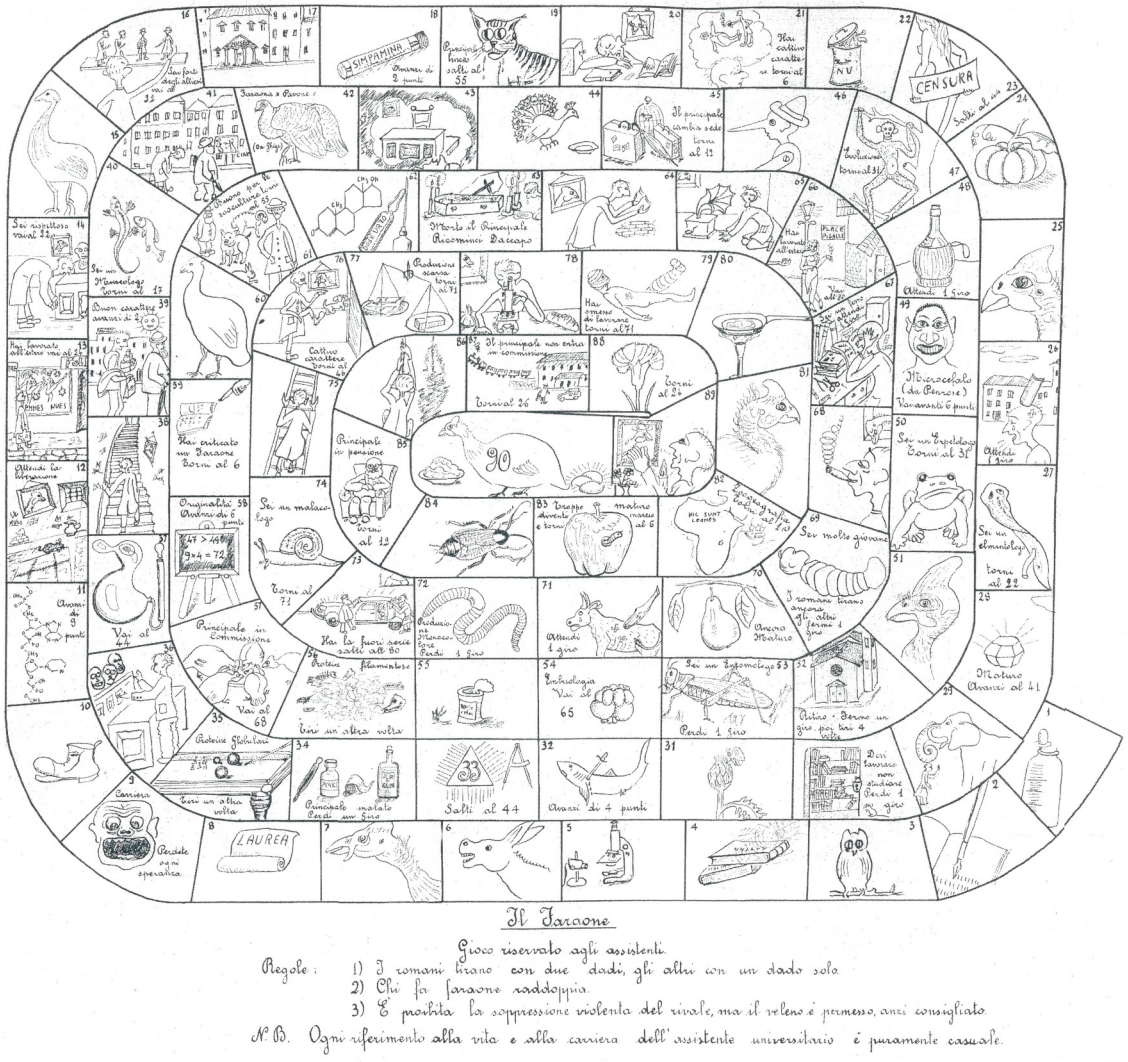

FIGURE 4. The Pharaoh's Game, created by Pietro Omodeo in the 1950s, in view of his competition for the professorship. Space 72, with the picture of an earthworm, says: "monochrome production, miss one turn". Space 82, decorated with a map of Africa says: "zoogeography, go back to space 10". Space 85 says: "your boss has retired, go back to 12".

Pietro's lifelong battle against the sectarianism of Italian academia, often peppered with sharp satire, will be remembered. Already in the 1950s, an appointed professor in the running for tenure, he had invented a spiral board game, the "Pharaoh's Game", which, along the lines of the Goose Game, illustrated step-by-step the "bad luck" that plagued the lives of aspiring academics. (*Faraona* is the Italian name for the helmeted guinea fowl and personified the university baron). Thirty years later, he wrote a caustic skit featuring Pinocchio and other characters (the Fairy, the Cat and the Fox, and the puppet master Mangiafuoco) to mock the manoeuvres his fellow commissioners had pulled during one of these tenure contests.

However, the critical eye of the engaged citizen and scholar coexisted all along with the smiling, positive gaze of a man who instinctively loves and trusts his fellow man, and with the passionate, amused eye of the naturalist. And it was Pietro's love for nature, and especially his great curiosity and wonder for "life" in all its manifestations, that made him a world-renowned scholar, beginning with his in-depth study of earthworm biology, which he continued until his last years.

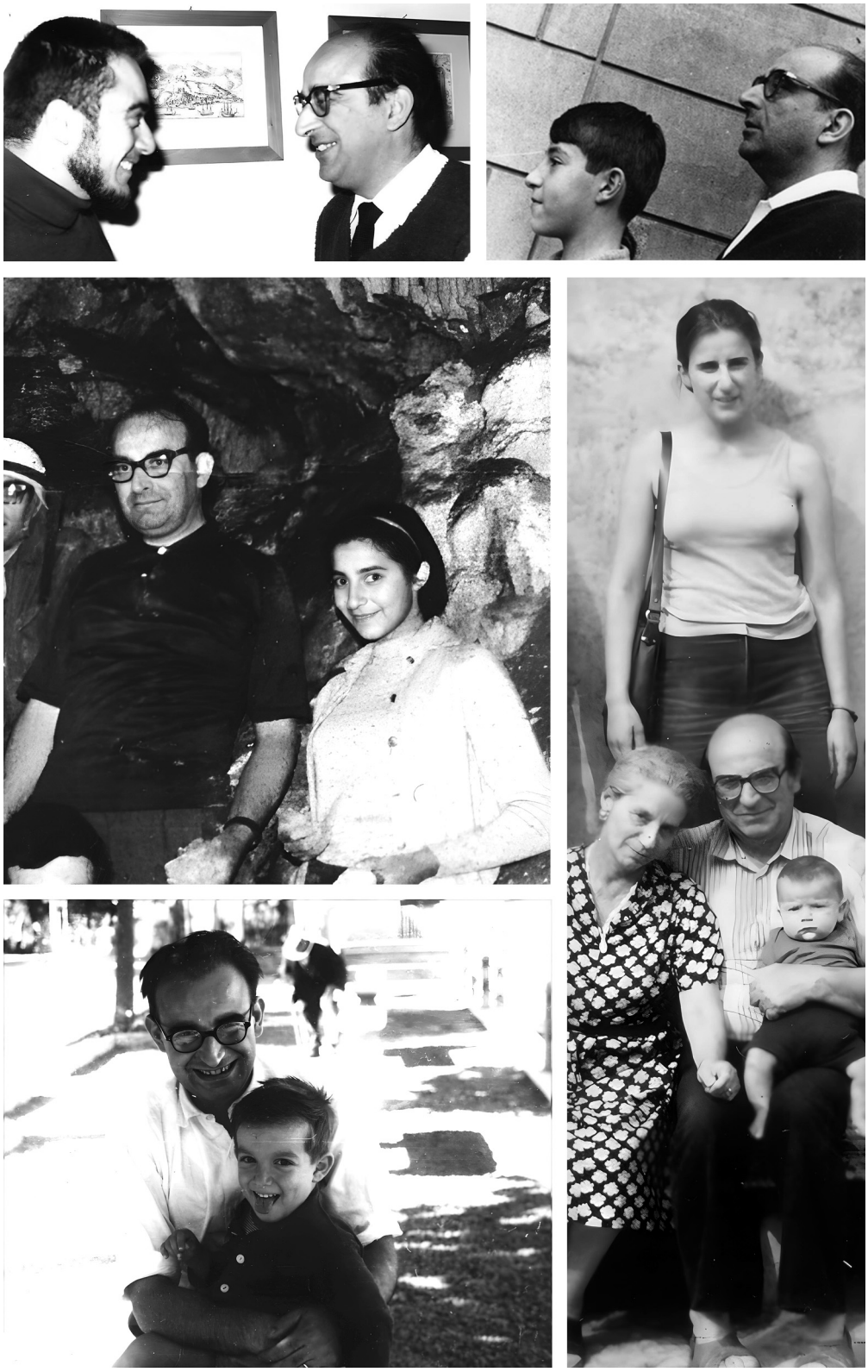

FIGURE 5. Pietro Omodeo with his wife Miriam Donadoni (1916–2003) (bottom right) and their five children: Adolfo (1948–2017), psychologist and poet (top left); Clara (1949–2021), architect (centre left); Eugenio (1951–), mathematician and computational logician (bottom left); Giovanni (1953–), figurative artist (top right); and Maria (1957–), sinologist (centre right; in the same photo, in Pietro's arms, bottom right, the third of his many grandchildren, Pietro Daniel, epistemologist, son of Eugenio).

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Pietro Omodeo was born in Cefalù, Palermo, Sicily, on September 27, 1919, the fourth and only boy of five children. His father Adolfo was a historian of ancient Christianity, of Italian Risorgimento, of France in the age of Restoration, and a politician (Action Party), who served as Rector of the University of Naples through 1943–1946, and as Minister of Education in the second Badoglio government (1944). His mother Eva Zona, daughter of Temistocle (astronomer and Garibaldian), and one of the first women to receive a degree in Literature in Palermo, was a literary critic and translator of French authors such as Tocqueville, Madame de Staël, and Rousseau.

The family having moved to Naples, Pietro spent many of his childhood summer vacations in Positano on the Amalfi Coast. At the time, Positano was a fishing village without electricity or running water, depopulated by emigration. It was there that Pietro developed his love for nature: "*In the holes in the dry stone walls there were snails, slugs, lizards, all kinds of things. I remember finding the lizards' eggs and the time one of them broke and inside there was the little lizard, well advanced, but certainly not able to survive ... I fantasized about the exploits of the eel that lived in the rainwater cistern: it had been put there to eat mosquitoes and other insects, but sometimes it managed to come up in the bucket and see the light, only to be promptly thrown back into the cistern ... Towards the end of September a school of sperm whales passed by, feeding on squid chasing blue fish. The fishing boats were all there to steal the fish from the giants. From a row boat, I could see the dripping backs of the beasts. I was fascinated ... but ready to escape*". The war and other hardships of life never dampened this passion; on the contrary, thanks to these naturalistic diversions Pietro managed to abstract himself from the harsh reality that often surrounded him: a photo from 1941 shows him handling small snakes in a landing field in Libya.

FIGURE 6. Pietro guest in a zoology laboratory in Prague in the 1960s.

In 1936, Pietro completed his classical studies at the Liceo Sannazaro in Naples. According to his own words, he had not been an outstanding student, but thanks to his high marks in the natural sciences, he was admitted to the Scuola Normale Superiore in Pisa and enrolled in Natural Sciences at the University of Pisa. To be "normalists" meant being housed free of charge in the residential college, live and work together, have discussions with scholars

of all ages, provenance and educational pathways, start research early on. On the other hand, normalist students were committed to attending the lectures given by the Normale together with the corresponding study courses of the University of Pisa. Hence they followed two parallel and complementary educational courses respecting rigorous learning obligations. Thus «*it was a privilege that had to be paid for with a commitment in terms of time and quality of study that was incomparably higher than that of one's peers. But not every obligation was met with the same enthusiasm. Immersed in the tide of attending classes, studying for exams, taking part in seminars and interviews, normalists traditionally had little time or enthusiasm for the language exams that were required at the end of the year*» (Mondini 2010).

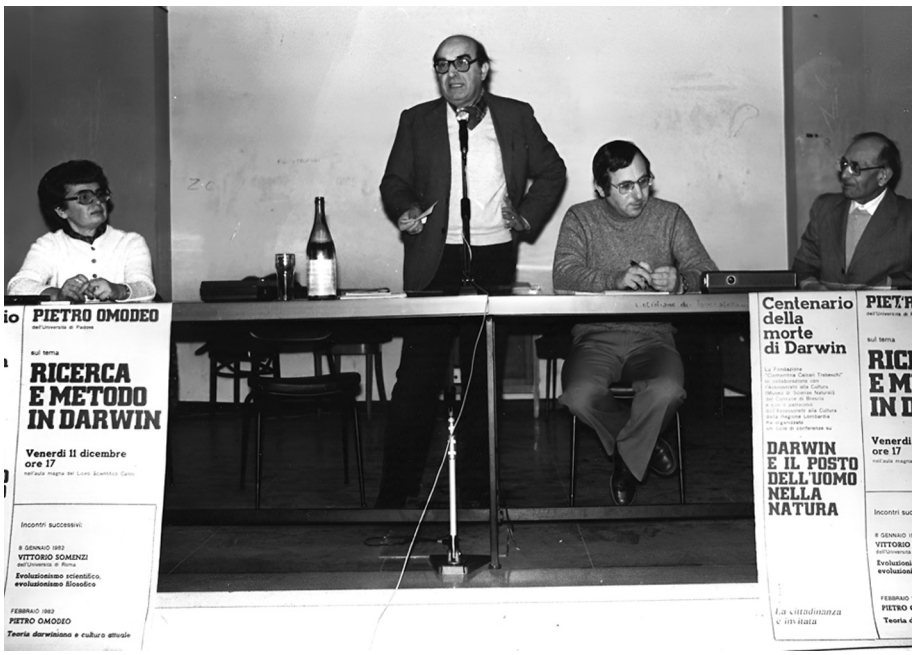

FIGURE 7. Pietro Omodeo speaker at a conference (Brescia, December 1981) on the Centenary of the Death of Charles Darwin.

And Pietro, in his third year, failed the French exam. Moreover, his disenchanted and ironic behavior, especially in the face of public celebrations of the prestige of the school and the fascist regime, got him into trouble and he was expelled from the Normale. Pietro studied in his fourth year as an ordinary student at the University of Pisa.

The courses he attended in Pisa from the zoologists Umberto D'Ancona and Giuseppe Colosi, from the plant cytogeneticist Alberto Chiarugi and from the geographer Giuseppe Caraci were fundamental for his scientific training. In particular, the training with Colosi, a former student of Daniele Rosa, was crucial, as he introduced Pietro both to the great questions of Darwinism and Neo-Darwinism, and to the world of earthworms. Pietro graduated with honours with an experimental thesis on the blood system of *Octodrilus complanatus*. The study covered anatomical, histological and physiological aspects, including the pulsation frequency in normal conditions and under various stimuli. The day before (June 10, 1940), Italy had entered the war.

Pietro, now in his 2nd year in the army, managed to win a scholarship to study for a doctoral degree at the Normale, but at the end of December 1940 he left with the troops for Libya, as an anti-aircraft artillery officer. In North Africa he found himself defending airports and ammunition depots, in battles with increasingly fatal outcomes, due to the slowed influx of reinforcements and supplies. After El Alamein (October 1942), he was captured by the British and remained a prisoner in Egypt (POW Camp 304) until February 1946. "*So many years of life wasted, a fate shared with hundreds of thousands of peers ... After such ordeals and such a long period of intellectual inactivity*", he wondered, "*will we still be able to study?*".

During his captivity, Pietro had the opportunity to listen to a speech given by his father, Rector of the University of Naples, to Italian prisoners of war and broadcast by Radio London. The camp authorities allowed the prisoners to listen to it: it contained words of motivation and inspiration, but also harsh accusations against «*an absurd policy that had plunged all of Italy into ruin*», against «*the Italian generals who had disarmed the divisions and handed*

them over to the German patrols», against «*those who dared to send you into the war to face the tanks with the Model 91 musket*» (Omodeo 1944).

Less than three months after Pietro's return to Italy, his father died of Malta fever. That same spring, Pietro found himself elbow to elbow on a lorry with a very young Giorgio Napolitano, propagandizing against the monarchy. A few weeks later, on June 2, 1946, an institutional referendum established the birth of the Italian Republic. Napolitano had just been elected Federal Secretary of the Italian Communist Party in Naples, and would later serve as the 11th President of the Italian Republic, from 2006 to 2015. Pietro never wanted to be a member of a party, but in Naples and then in Siena he played an active role participating in the meetings and initiatives of the so-called dissident culture, so much so that his name was mentioned in a report by the Siena police headquarters (6.viii.1951).

FIGURE 8. Pietro digging worms in Anatolia, 1987 (Vilajet Giresun, hazelnut grove in the Görele district, type locality of *Eophila cavazzutii* Omodeo, 1988).

Pietro found both the Universities of Naples and Pisa devastated by the war. Hired as a "supernumerary assistant" at the chair of Zoology in Naples, headed by Umberto Pierantoni, he set to work at the Naples Zoological Station, which had fortunately escaped the bombing. In this intellectually fertile environment, and again under Colosi's supervision, he began his doctoral project on earthworm embryology, focusing on the developmental peculiarities of *Aporrectodea trapezoides*: diembryos (due to splitting of the gastrula), double monsters (or coalescent twins, by incomplete splitting), or more complex monstrosities (by late duplication of germinative bands). He also followed the differentiation of specialized cephalic structures (pharynx, brain, esophageal hearts, gonads) during normal embryogenesis, teratogenesis or regeneration. Of the same species, Pietro addressed the genetic study of uniovular twins, establishing that the number of segments is subject to phenotypic determinism (amount of food ingested inside the cocoon) as part of a genetic control acting on the reaction norm. At the Naples Zoological Station, Pietro met Giuseppe Montalenti, evolutionist, zoologist, embryologist and first holder of the chair of Genetics in Italy, who would become his lifelong mentor and friend.

In 1947 Pietro defended his doctoral dissertation at the Normale, receiving top marks and honours. The examining committee declared his work worthy of publication. In the same year he married Miriam Donadoni, a pianist and musicologist. Miriam had the same respectful approach to life as Pietro, or even more so: no living being, not even a mosquito or a weed, should be killed. She often recommended that he sacrificed the bare minimum of animals. In July 1948, he presented his embryological results at the 13th International Congress of Zoology in Paris, being congratulated by Étienne Wolff, embryologist and teratologist from Strasbourg, Marcel Avel, French oligochetologist, and the Swedish embryologist Sven Hörstadius. This work also earned him the "Cavolini-De Mellis Prize" from the Academia Pontaniana in Naples, revealing him as one of the most talented young researchers in the field. He received invitations to work abroad, e.g., from Hörstadius in Stockholm, but after the birth of his second child, he needed a full-time job. With no prospects in Naples, in 1949 he moved to Siena, called as an assistant by Emanuele Padoa, a general biologist, comparative anatomist, and geneticist who had worked at Caltech in Pasadena and maintained regular contact with Theodosius Dobzhansky and Leslie Clarence Dunn.

In Siena, Pietro went deeper into exploring the reproductive biology of earthworms, investigating the relationships between polyploidy and parthenogenesis. He discovered in *Ap. trapezoides*, *Ap. rosea* and *Eiseniella tetraedra* the phenomenon of obligatory parthenogenesis with premeiotic restitution, where a "restorative" premeiotic mitosis provides oocytes-I with a double number of chromosomes compared to that of the oogonia, after which a normal meiosis brings the number of chromosomes in the oocytes back to normal. Mature eggs will develop without fertilization or by pseudogamy. The English botanist Irene Manton simultaneously described and interpreted identical phenomena in ferns.

By extending the cytogenetic and cytometric survey to 14 lumbricid species (with a total of 22 genomic races from 40 different populations), Pietro found that three quarters of the polyploid races were obligately parthenogenetic. In many of those species, he demonstrated the coexistence in the same locality of multiple forms with different ploidy, which, if interfertile, could produce the full range of intermediate forms. He emphasized the correlation between polyploidy with obligate parthenogenesis and the dispersal ability of the species. All these results, although published mainly in Italian, were widely cited by cytologists and geneticists such as Cyril Dean Darlington, Michael J.D. White, Hans Bauer and Ernst Mayr. The influence of geographic factors on the frequency of earthworm polyploidy was discussed at the 14th International Congress of Zoology in Copenhagen.

Pietro deduced that one of the main causes of the difficult systematics of megadriles was the frequency of polyploid mutations: «*the extreme polymorphism of some species is caused by obligate parthenogenesis which allows, through consecutive generations, the persistence of structural variations of the male apparatus and copulatory organs, which are crucial for earthworm taxonomy*. *Sometimes multiple, and morphologically indistinguishable, amphigonic polyploid strains form systematic units that can be defined as collective species. Within collective species the same genomic mutation can show different morphological characters in different localities and, vice versa, different genomic mutations can show the same morphological characters in distant localities (cryptic species)*» (Omodeo 1953). He therefore suggested an *ante-litteram* integrative approach to earthworm taxonomy, where morphological investigations had to be combined with cytological and faunal information.

In 1956 Pietro published a monograph where he proposed a new classification and phylogeny of the Lumbricidae, based on careful evaluation of morphoanatomical characters (where possible, analyzed with statistical tools) combined with bio-ecological (habitat, diapause, secondary growth) and embryological (gametogenesis, organogenetic gradients) considerations. All his new subgenera, *Dendrodrilus, Octodrilus, Cernosvitovia* and *Microeophila,* were subsequently promoted to genus rank.

FIGURE 9. Pietro Omodeo at the 2nd International Oligochaeta Taxonomy Meeting (IOTM), held in Cluj, Romania, September 2005. On his left, Victor V. Pop and Adriana A. Pop; Photo Ana G. Moreno.

His reputation as an oligochaete systematist was now established, and Curt Kosswig and others entrusted him with oligochaete material from Turkey and the near East; the Swedish speleologist Knut Lindberg sent him cave samples from Afghanistan. Other scientists sent to him non-lumbricid collections from Venezuela, Vietnam, the Ivory Coast and Angola. Maxime Lamotte sent him a rich collection from Nimba mountain, at the cross point of Guinea, Ivory Coast and Liberia, which contained dozens of new species belonging to eight families, including Haplotaxidae and Enchytraeidae. One third of the new Acanthodrilidae (now moved to a separate family, Benhamiidae) belonged to genera also represented in South America, such as *Neogaster* (now *Afrogaster*) and *Wegeneriella*: an amphi-Atlantic proportion higher than expected, which stimulated Pietro's interest in biogeography.

In Europe he found, in particular, the family Hormogastridae—endemic to the western Mediterranean lands—lent themselves to biogeographical considerations, due to their endogeic habits, physiological adaptation to prolonged periods of drought, and low vagility.

In the mid 1950s, Pietro was invited to study the Arctic earthworm collections of Christian Vibe and others at the Zoological Museum in Copenhagen, an investigation with biogeographic, ecological and cytogenetic implications. The Greenland and Icelandic populations turned out to be very different from the conspecific ones from England and the Alps, which made transportation by man an unlikely explanation of their origin, and the survival *in loco* in ice-free nunataks the most probable explanation. During a 1962 symposium on the history of North Atlantic biota in Reykjavik, Iceland, organized by Askell Löve, Pietro, who had by now matured taxonomic and biogeographic expertise on an intercontinental scale, revived the theory of Wegener, then in great disrepute although the geologists had begun to reconfirm it. He also denied that all European species of earthworms in North America were introduced by European settlers during the past few centuries and suggested the existence of a pre-Quaternary Holarctic earthworm fauna.

FIGURE 10. Pietro Omodeo in the reading room of the Biblioteca Comunale degli Intronati of Siena, portrayed without his knowledge in a brochure promoting Tuscan libraries (Siena, 2012).

In 1958 the Accademia Nazionale dei Lincei awarded Pietro Omodeo the "Battista Grassi Prize" for the best zoological production for the two-year period 1956–57. In the volume on the annelids in Grassé's *Treatise* (1959), Omodeo is the most cited author. After all, Marcel Avel, author of that section, had written to him (13.vi.1956): «*Allow me to tell you in all sincerity that your work is excellent, well-founded and bears witness to the broad, modern character of your culture and the soundness of your judgement. In many respects, your studies inaugurate a new era in our knowledge of the Oligochaetes, and it is clear that you are currently the best specialist on this group*».

Pietro had also become an experienced historian of biology. He had assimilated his father's teachings, in particular the approach of the historian of ideas that Adolfo had illustrated in a letter (23.xii.1912) to his wife Eva: «*All too often the historical process runs the risk of becoming a catalogue and not a development ... What is interesting to know is the process of the formation of concepts, it is not enough that from our present position we attribute one of the great discoveries to each of the great thinkers, to Socrates the concept of concept, to Aristotle the entelechy, to Descartes the Cogito, but we must participate in the movement of the Idea. And then, these great thinkers, whom we want to petrify in a concept, will appear to us as a concept in formation ... We will no longer be able to make a clear distinction between the living and the dead in a thinker, but the living will appear to us, in this process of formation, as absolutely conditioned by what we classify as the dead. If we want to understand the living, we must revive the dead through which that living has revealed itself. The living separated from the dead (that which is dead to us) is an arbitrary separation made by ourselves*».

By the end of the 1960s, Pietro had produced original essays reconstructing, step by step, the debate on spontaneous generation from Francesco Redi to Jean-Baptiste Lamarck; Antonio Vallisneri's transition from anti-Aristotelianism to creationism; the emergence of evolutionary thought before Charles Darwin; the idea of the inheritance of acquired characteristics from the Renaissance to Darwin himself. His interest in this field had begun in the immediate post-war period when he discovered some uninventoried writings of Lamarck in the library of the Institute of Zoology in Naples, along with original notes from the lecture courses of Georges Cuvier, Lamarck and others, brought from Paris by the Institute's founder, Giosuè Sangiovanni.

FIGURE 11. Pietro at his home in Siena (October 22, 2022) happily discussing my recent findings on the anatomy of some earthworms (interrupted by a phone call).

"*When I was in Paris in the summer of 1948, I went to the archives of the Jardin des Plantes to get a more precise idea of Lamarck's events and the development of his thought. Thanks to the assistance of Mme Gabrielle Duprat, librarian of that institution, I found myself in front of a mountain of manuscript pages. I worked for a few weeks, which were supposed to be holidays, to sort things out. From all that work I obtained two articles of a few pages and the gratitude of the French who were interested in their controversial naturalist*". Pietro's philological work on Lamarck's unpublished papers was indeed incredible. Giulio Barsanti wrote recently (2020): *«Last spring I found that all Pietro's notes had been religiously filed by the librarians, one by one, according to where Pietro had inserted them, in case they had flown away while leafing through Lamarck's manuscripts. The French say that without Pietro's work the publication of the* Inédits de Lamarck *by Vachon, Rousseau et Laissus (1972) would never have been possible».*

Pietro had built up the same level of acquaintance with the life and thought of Charles Darwin: "*In January 1960, I was in cold, foggy London, studying Darwin in the fabulous library of the British Museum and earthworms in the Spirit House. At that time, Sir Gavin de Beer, Director of the British Museum, when I went to greet him, froze me with the question: «But really? Are you working on evolutionism in Italy?». Indeed, mine was a thankless pioneering job, even though Colosi, D'Ancona and Montalenti had laid some good foundations. But I did not flinch and did not answer. Lady Nora Barlow, great-granddaughter of Charles Darwin, helped me by lending me what I couldn't find and taking me to antique bookshops. I returned to Siena with all of Reverend Paley's theological works and with several editions of Darwin's works. With this material I wrote the introductions to* A Naturalist's Voyage Around the World*, published by Feltrinelli (1967), and to* The Origin of Species*, published by Newton-Compton (1973), as well as a biography of Darwin that appeared in the series entitled* The Protagonists of Universal History *(Milan, CEI 1968)*".

Over the decades he continued to cultivate his vocation as a historian of biological ideas, consulting first-hand sources in libraries and archives in Italy and abroad, but also gradually accumulating a rich personal library. At a time when there was a widespread belief that scientists should know only the latest discoveries and forget the past because early science was full of errors and naivety, he was convinced of the importance of returning to the study of the emergence of concepts, their slow confirmation amid uncertainties, misunderstandings, but also great insights. In 1967 he edited Denis Diderot's *Interpretazione della natura* (Editori Riuniti, Rome). In 1969 he translated and published an anthology of the works of Lamarck (Utet, Turin). In the essays later collected in *Gli abissi del tempo* (Aracne, Rome, 2000; 2020), the duration of time, the formation of the "mind", the order of living things, and other great ideas related to evolutionism were followed in their development through the thought of Linnaeus, Étienne Bonnot de Condillac, Pierre-Louis Moreau de Maupertuis, Erasmus Darwin, as well as Erwin Schrödinger and other protagonists of modern knowledge, in the cultural and political context of their respective eras.

Full professor since 1960, Pietro remained in Siena until 1965/66. As Director of the Institute of Biology and Zoology from 1954, despite limited financial resources, he expanded the research and teaching facilities, the furniture and scientific equipment, and doubled the meager library. In 1951–1955 he served as Councillor for Culture of the provincial administration of Siena, and from 1952 to 1965 he was Senior Councillor (Vice-President) of the local civic hospital "Santa Maria della Scala", one of the oldest hospitals in the world. In 1956–1960 he was City Councillor, and from 1960 to 1965 President of the Council of the San Marco Orphanage in Siena.

A firm believer in a global community, Pietro did never fail to take part in facing, and informing about, the challenges of the day. He returned to Paris in 1949, and travelled to Moscow in 1950, as a member of the Italian delegation of the Partisans for Peace, and from the 1950s he was active in initiatives such as the Stockholm Peace Appeal, which called for a ban on nuclear weapons. He was a member of the "Fédération mondiale des travailleurs scientifiques", which condemned American aggression during the Vietnam War and accused the USA of violating international agreements and using biological and chemical weapons. In several essays, he wrote against those who used advances in biology, medicine, and technologies to oppress and destroy: «*What is the biologist today? From a harmless naturalist and guarantor of health and domestic economy, he has become a cynical manipulator, constructor of ever more pestilential and deadly poisons and germs to be used in chemical and bacteriological warfare*» [...] «*Modern wars have added the horror of modern technology to the dimension of primeval terror*». He also wrote prophetically: «*The scientist must not neglect to study the limits and long-term consequences of an innovation, the politician and the military must not distort its use to the detriment of the population, and finally, the common man must not exploit its immediate benefits indiscriminately, setting up a system of robbery on a planet that has finite dimensions and an equilibrium that is dangerous to alter*».

FIGURE 12. Pietro guest of honor at the celebration of the 150th anniversary of the Naples Zoological Station, April 2023.

In 1962, Pietro gave a public speech in Siena (which his sons Eugenio and Giovanni still remember) on the consequences that a nuclear conflict caused by the Cuban crisis could have had for humanity. On that occasion he also spoke about the damage that some nuclear tests in the Pacific had caused to marine ecosystems. Later that year, he was at the Moscow International Symposium on Higher Scientific and Technological Education, sponsored by the world federation of scientific workers, where he gave a lecture on *Relationships between Biology and Social sciences*. In 1963, he registered as a member of the 16th International Congress of Zoology in Washington D.C., but did not attend: he had been denied a visa to the US, as he was considered "undesirable". He protested vehemently to the US embassy, and when he finally got the visa it was too late. Since then he had no further desire to go to America.

In 1966, Pietro moved to Padua, as full professor of Zoology at the polychair Institute of Zoology, Comparative Anatomy and Genetics. "*Finally working at a University that had a rich and up-to-date library! Every Saturday I went to those rooms to catch up on what was being said, what was being done, from America to Russia, because there were also some Russian magazines*". He would remain there for 18 years, publishing less on earthworm topics, although he was an active collector, but intensely on evolutionism and theoretical biology. Pietro's commitment to evolutionary thinking was in fact, from the beginning, not just historiographic, but also theoretical. Through his lectures, his essays, his book reviews, his conferences, he worked to defend and illustrate the validity of the theory of evolution, both in front of abuses and misinterpretations, and the new findings that seemed incompatible with the theory itself. He especially urged the need for a complex system-oriented conceptual framework, integrating developmental, ecological and energetical perspectives.

Indeed, through the contamination and cross-fertilization of disciplines, a lesson learnt at the Normale, Pietro always sought to promote new avenues of knowledge and new methodological approaches. With the emergence of cybernetics in the 1950s, he had worked to deepen the understanding of self-regulating systems in biology and of the flow of information within and between living organisms and between them and the environment. In the 1960s he was chosen as president of the scientific council of the newborn CNR laboratory of Cybernetics in Naples (Arco Felice and Pozzuoli) and collaborated with the CNR laboratory of Cybernetics and Biophysics of Genoa. He was also member of the scientific council of the CNR Biophysics Institute in Pisa and made a decisive contribution to

the foundation of the Italian Society of Pure and Applied Biophysics (1973) and the Italian Coordination Center of Theoretical Biology (1997). When he arrived in Padua, his inaugural speech for the 1966/67 academic year was about *Cybernetics in Zoology*. In 1977 he published *Biologia* (Utet, Turin) an extensive treatise that ranged from bacteriology to anthropology. The book also included two introductory chapters on information theory and self-regulation theory applied to biology. In 1980 Pietro coedited *Development in Biophysical Research* (Plenum Press, New York & London).

Already in 1968/69 Pietro had taken over as Director of the polychair Institute of Biology of Padua and was in charge when student protests broke out violently. But Professor Omodeo was not in danger from the students. Having been an anti-fascist goliard in Pisa, the war had further forged his refusal to enjoy power over the lives of others, and he was seen more as an accomplice than an enemy. Some still remember Pietro's openness to the student movement; although strongly critical of extremism, he took part in student assemblies, and his daughter Maria (the youngest of his children) still remembers when he brought food to the occupying students in the evenings.

However, it was not an easy time for him: "*I had spent seven years in the military, but life in Padua seemed almost worse... the heartache, the anger, and the dangers from which I had to protect the students. There were really frightening confrontations, because the police threw smoke bombs inside the Institute, breaking the windows, with the risk of setting fire to the library, where two or three hundred students were barricaded. The police often threw at people, as they did in Milan, where one of these student demonstrators was killed. Not that the students were, let us say, completely clean. For example, they had brought crates of Coca-Cola to the highest windows of the institute and threw them at the police. I don't know, it was like a war zone, not a peacetime university*".

While in Padua, from 1969 through 1984 Pietro was editor-in-chief of the *Bollettino di Zoologia* (later *Italian Journal of Zoology*, now *European Zoological Journal*). From 1967 he was a member of the Council of the Unione Zoologica Italiana, then a member of its Teaching Commission, where he worked for the modernization of biological science courses. He also fought to ensure that scientific institutions such as the Zoological Station of Naples did not have a purely administrative management. In 1979, President of the Italian Republic Sandro Pertini awarded him the Gold Medal of the Benemeriti della Scuola, della Cultura e dell'Arte.

In 1984 he published the book *Creazionismo ed Evoluzionismo* (Laterza, Bari), where he demonstrated that «*The dispute over creation, the origin of man and the history of the Earth is not only a bitter cultural diatribe against the authority of the Bible. From the seventeenth and eighteenth centuries onwards, it also had technical and economic implications linked to the emerging industry and the new trade routes. Palaeontologists and geologists, naturalists and philosophers, theologians and entomologists, from Redi to Darwin, were all involved in a controversy that concerned religious orthodoxy and scientific progress, academic power and the structure of society*». In its second edition (Editrice Bibliografica, Milan, 2022), this work would be presented as "now fully considered a classic in the field".

That same year (1984) Pietro left Padua for Rome, to take up the chair of Zoogeography at the brand-new University of Tor Vergata. There his love of earthworms had a resurgence. Not only did he organize an international symposium on earthworm ecophysiology dedicated to Daniele Rosa ("On earthworms", Carpi, Modena, March-April 1985), but he also resumed his research on the causal zoogeography of earthworms, supported by well-funded national research programs. During the last years before his retirement, and for another ten years, he travelled the world with energy (he was proud of his zoologist's muscles) and enthusiasm, driven by a desire to delve deeper into research topics he had undertaken early in his zoological career. He concentrated mainly on the earthworm fauna of the Mediterranean: Sardinia and the surrounding islands, Tuscany and its archipelago, Sicily, some crucial regions of France and Spain (Provence, Corsica, Pyrenees, Catalonia, the Balearic Islands), the Maghreb (totalling five expeditions) and Turkey (two expeditions).

Pietro delivered his official last lecture at Rome's Tor Vergata University on May 31, 1989, before a full auditorium. The lecture, entitled *The Two Sisters*, illustrated the contrasting laws governing inanimate matter and the functioning of living beings, and thus the epistemological relations between the so-called hard and soft sciences. Giving a satisfactory definition of a living being and rejecting any form of dogmatism and orthodoxy in the scientific field were topics he cherished and would be the subject of numerous other contributions in the years to come. Till the end he showed an inexhaustible interest and fidelity to such major problems of biology, recognized as critical points of the discipline. Many of Pietro's writings on these topics, as well as others on the relationship between ethics and biology, sustainability and progress, evolutionism and the social sciences, are collected in the anthology *Biologia con rabbia e con amore* (Unitor, Rome, 1989; 2nd ed. Aracne, 2020).

Once again, the inadequacy of the library at Tor Vergata University was a determinant for changing city. In 1990, Pietro returned to Siena. Guest at the now modernly equipped University of Siena, he continued to work on the topics of oligochaete systematics and zoogeography, history of science, evolutionism and cytology: he would produce another 104 publications. First of all, he made an effort to consolidate his earthworm faunal records, compiling a national catalog for Italy and checklists for Maghreb and Turkey. He revisited the overall earthworm diversity and areas of endemism in the Mediterranean area in relation to land evolution formulating new hypotheses and interpretations. He contributed to the systematic of the Alluroididae describing new species from South America and, in 1998 and again in 2000, he attempted a reconstruction of the origin and evolution of Clitellata based mainly on the vascular system and on the female and copulatory apparatuses. In it he hypothesized a polyphyletic origin of megadriles, i.e. the orders Megascolecina, Lumbricina and Eudrilina, from the Alluroididae (via the Ocnerodrilidae?), the Haplotaxidae (via some primitively aquatic genera), and directly from the Alluroididae. More recently, he willingly participated in studies that challenged or gave molecular support to his morphology-based investigations, e.g. of the Hormogastridae. Whenever he could, he enjoyed attending national and international oligochaete conferences: he took part in the 4th ISEE (Avignon, 1990), the 5th ISAO (Tallinn, 1991), the 6th ISEE (Vigo, 1998), the 8th ISAO (Bilbao, 2000), the 7th ISEE (Cardiff, 2002), the 1st IOTM in Madrid (2003), the 2nd IOTM in Cluj (2005), the 2008 international colloquium "Scientific Exploration in the Mediterranean Region" cosponsored by the California Academy of Sciences, the University Museum of Florence and the Academy of Fisiocritici of Siena.

Now and then he returned in Rome to hold seminars and frequent the philosophical circles of the Sapienza University. He was among the founders of the "Philosophies of Biology" group, the first nucleus of the subsequent Interuniversity Center for epistemology and history of living sciences (ResViva), where people with different backgrounds (biologists, naturalists, philosophers, epistemologists, historians of the living sciences, physiologists, neurophysiologists) discussed in regular and informal workshops, in a context free from academic status.

"*As often happens, I asked myself: what to do during retirement? An old age of the usual, conventional type, playing cards, trumps, playing bowls to keep me physically fit? But things went differently, reading and research never stopped; the desire to work, to extract from ancient texts what they contain has never calmed down; and I think it was this love of books, of writings, and of a correct and patient interpretation that has extended my life"*. Drawing on his own library full of rarities and on original research in the historical libraries of Siena and Rome, Pietro wrote the book *Alle origini delle scienze naturali (1492-1632)* (Rubbettino, Bari, 2001), in which he recounted the uncertain birth of the experimental method in a Renaissance still populated by witches and magicians, but where navigators, cartographers, naturalists worked for a more exact documentation and a more cautious interpretation of reality, opening new avenues, promoting welfare, and above all, bringing about profound changes in common thinking.

In a paper for *Tsitologia* (2010) and the monograph *Evoluzione della Cellula* (ETS, Pisa, 2010), he reconstructed the history of cell evolution from the first bacterial cell till the level of complexity obtained by protists, on the basis of a 50-year bibliography from the most diverse fields of investigation. Particular attention was paid to the genomic compartment and to the question: why has the genome of prokaryotes remained so small over more than 3 billion years and more than 3 trillion generations?

On September 2015, a plaque was presented to Pietro with the inscription: «*The Italian Society of Evolutionary Biology (SIBE) thanks and greets with affection Professor Pietro Omodeo for the precious work of a lifetime and for being an authentic milestone for all those involved in Evolution in Italy and all over the world*».

As a last effort, he devoted his energy to Amerigo Vespucci, to rehabilitate the figure of the great Italian navigator. "*I realized that it was essential to delve deeper into the positive side of Vespucci which had been loaded with all sorts of slander, and I therefore committed myself to reading the original sources: and little by little a character emerged who was profoundly different from what history handed down to us*". Two Italian (Artemide, 2017; Robin, 2021) and one English edition of this work (Ca' Foscari, Venice, 2020) were published.

In June 2017 he said in an interview: "*I am now 98 years old and my body is obviously affected, but my intellect is not convinced. I always seem to be the same when I start reading and watching, and I will continue like this for the time I have left*". On 1 October 2019, the Academy of Fisiocritici, the University of Siena and the Interuniversity Centre ResViva organised a day of celebration for Pietro's 100th birthday, during which colleagues, students and friends came from all over Italy to offer their testimony, personal memories, anecdotes, pieces of life lived in his company. On this occasion, Pietro was awarded the Signet Ring of the University of Siena for his contribution to the University of Siena and to the progress of all science in Italy.

During the Covid-19 lockdown and later on, Pietro remained active through interviews on Internet TV and posts on Facebook, informing and discussing the state of the planet and the climate crisis. In May 2022, he flew to Catania, Sicily, to receive the SISS (Italian Society for the History of Science) Lifetime Achievement Award for the results achieved with his historical research. In April 2023, he was the guest of honor at the 150th anniversary of the Naples Zoological Station.

Till the very end, everyone who asked for his advice felt valued and supported, regardless of rank, class, culture or generation.

References

Barsanti, G. (2020) L'esordio, l'approdo e l'accompagnamento. *In*: Rota, E. (Ed.), *Insieme per festeggiare i 100 anni di Pietro Omodeo: Siena, 1 Ottobre 2019. Diario della festa*. Accademia dei Fisiocritici, Siena, pp. 55–56. [see link below in Rota, E. 2020]

Buiatti, M. (2009) La Biologia in Italia e il contributo di Pietro Omodeo. *In*: *Festa NAT 2009 - Pietro Omodeo, scienziato e umanista.* Available from: https://www.naturalmentescienza.it/sections/?s=57 (accessed 23 December 2024)

Casellato, S. (2009) Pietro Omodeo, un biologo umanista. *In*: Casellato, S., Burighel, P. & Minelli, A. (Eds.), *Life and Time, the Evolution of Life and its History, dedicated to Pietro Omodeo*. Cleup, Padua, pp. 1–4.

Csuzdi, Cs., Rota, E., Szederjesi, T., Sherlock, E., Brown, G.G., Chang, C.H., Brinkhurst, R.D. & Jamieson, B.G.M. (2019) Description of a new Central African earthworm, *Petroscolex centenarius* gen. et sp. nov. (Crassiclitellata, Eudrilidae), celebrating the 100th birthday of Pietro Omodeo. *Zootaxa*, 4674 (5), 501–508. https://doi.org/10.11646/zootaxa.4674.5.1

Danesi, B. (2009) Pietro Omodeo e la sua passione per i libri. *In*: *Festa NAT 2009 - Pietro Omodeo, scienziato e umanista.* Available from: https://www.naturalmentescienza.it/sections/?s=55 (accessed 23 December 2024)

Danesi, B. & Bellucci, M. (2004) Scienze, storia delle scienze, storia delle idee. Intervista a Pietro Omodeo: Itinerari di un naturalista. *Naturalmente*, 17 (2), 3–11.

Forestiero, S. (2020) Vita di Pi. *In*: Rota, E. (Ed.), *Insieme per festeggiare i 100 anni di Pietro Omodeo: Siena, 1 Ottobre 2019. Diario della festa*. Accademia dei Fisiocritici, Siena, pp. 23–41. [see link below in Rota, E. 2020]

Mondini, M. (2010) *Generazioni intellettuali. Storia sociale degli allievi della Scuola Normale Superiore di Pisa nel Novecento (1918–1946)*. Edizioni Scuola Normale Superiore Pisa, Pisa, 313 pp.

Omodeo, A.(1944) Ai prigionieri di guerra*. In: Per la riconquista della libertà. Raccolta di pagine politiche*. Macchiaroli, Naples, pp. 70–74.

Omodeo, A. (1963) *Lettere 1910–1946*. Einaudi, Turin, 798 pp.

Omodeo, P. (1953) Specie e razze poliploidi di lombrichi. *Convegno di Genetica* (Supplemento a *La ricerca scientifica*), 23, 43–49.

Omodeo, P. (2009) Nuove strade per le scienze naturali. *In*: *Festa NAT 2009 - Pietro Omodeo, scienziato e umanista.* Available from: https://www.naturalmentescienza.it/sections/?s=59 (accessed 23 December 2024)

Omodeo, P. (2009) Biografia sommaria di Pietro Omodeo, raccontata da lui medesimo. *In*: Casellato, S., Burighel, P. & Minelli, A. (Eds.), *Life and Time, the Evolution of Life and its History, dedicated to Pietro Omodeo*. Cleup, Padua, pp. 1–4.

Omodeo, P. (2015) L'asola e il bottone, il racconto del grande naturalista (Intervista a Pietro Omodeo, a cura di L. Baranelli, B. Bertoncin & G. Saporetti). *Una Città*, 219, 23–28.

Omodeo, P. (2022) Prefazione. *In*: Omodeo, P., *Creazionismo ed Evoluzionismo*. *2nd Edition*. Editrice Bibliografica, Milan, pp. 9–14.

Omodeo, P. (2023) Il dopoguerra alla Stazione Zoologica di Napoli. *In*: Boero, F., Groeben, C. & Passariello, A. (Eds.), *La vita del mare, il mare per la vita. 150 anni di ricerca alla Stazione Zoologica Anton Dohrn*. Giunti, Florence, pp. 52–55.

Rosa, R. (a cura di) (2021) *Storie da raccontare: intervista a Pietro Omodeo*, RadioSienaTv, 12 November 2021. Available from: https://www.youtube.com/watch?v=EUFQg0vMav0&list=PLrJ1MaYGCgwWwXHf8xT78m-0zyfSf7puh&index=86&pp=iAQB (accessed 23 December 2024)

Rota, E. (2020) Introduzione. *In*: Omodeo, P., *Biologia con rabbia e con amore*. *2nd Edition*. Aracne, Rome, pp. 9–19.

Rota, E. (Ed.) (2020) *Insieme per festeggiare i 100 anni di Pietro Omodeo: Siena, 1 Ottobre 2019. Diario della festa*. Accademia dei Fisiocritici, Siena. Available from: https://www.fisiocritici.it/images/pdf/Volumi/Insieme_per_festeggiare_i_100_anni_di_Pietro_Omodeo.pdf (accessed 23 December 2024)

Appendix A

PIETRO OMODEO: A chronological list of his publications on Oligochaeta

EMILIA ROTA
Department of Physics, Earth and Environmental Sciences, University of Siena, Italy. E-mail: rota@unisi.it

Omodeo, P. (1941) Contributo alla conoscenza della circolazione in *Allolobophora complanata* (Sav.). *Archivio zoologico italiano*, 30, 1–37.
Omodeo, P. (1948) La poliembrionia e le anomalie di sviluppo presso un comune lombrico: *Allolobophora caliginosa trapezoides* (Dugès). *Archivio zoologico italiano*, 33, 1–87.
Omodeo, P. (1948) La poliembrionia ed i centri morfogenetici del lombrico. *Bollettino di Zoologia*, 15, 105–109.
Omodeo, P. (1948) Il letargo nei lombrichi. *Bollettino di Zoologia*, 15, 11–18.
Omodeo, P. (1948) Oligocheti della Campania. I. Sistematica e morfologia del Lumbricide *Eophila januae-argenti* (Cogn.). *Annuario del Museo Zoologico dell'Università di Napoli*, 8(1), 1–7.
Omodeo, P. (1948) Oligocheti della Campania. II. Morfologia e biologia dei terricoli: *Microscolex dubius* (Fletch.) (Megascolecidae, Acanthodrilinae) e *Hormogaster redii* (Rosa) (Glossoscolecidae, Hormogastrinae). *Annuario del Museo Zoologico dell'Università di Napoli*, 8(2), 1–11.
Omodeo, P. (1949) La polyembryonie et les centres morphogénétiques chez un lombricien. *In*: *Comptes Rendus XIII Congrès international de Zoologie*, Paris, pp. 277–280.
Battaglia, B. & Omodeo, P. (1949) Ricerche istochimiche sugli acidi nucleinici nella spermatogenesi dei lumbricidi. *Caryologia*, 2, 1–12.
Omodeo, P. (1950) Oligocheti, in: Ricerche zoologiche sul massiccio del Pollino. *Annuario dell'Istituto e Museo di Zoologia dell'Università di Napoli*, 2(10), 1–12.
Omodeo, P. (1951) Differenziamento dei cuori esofagei nel lombrico. *Bollettino di Zoologia*, 18, 9–25.
Omodeo, P. (1951) Corredo cromosomico e spermatogenesi aberrante in *Allolobophora caliginosa trapezoides. Bollettino di Zoologia*, 18, 27–39.
Omodeo, P. (1951) Raddoppiamento del corredo cromosomico nelle cellule germinali femminili di alcuni lombrichi. *Atti dell'Accademia dei Fisiocritici in Siena*, (s. XII), 19, 1–4.
Omodeo, P. (1951) Il fenomeno della restituzione premeiotica in lombrichi partenogenetici. *Bollettino della Società Italiana di Biologia Sperimentale*, 27, 1292–1293.
Omodeo, P. (1951) Gametogenesi e sistematica intraspecifica come problemi connessi con la poliploidia nei Lumbricidae. *Atti della Società Toscana di Scienze Naturali*, (s. B.), 58, 3–12.
Omodeo, P. (1951) Problemi zoogeografici ed ecologici relativi a lombrichi peregrini, con particolare riguardo al tipo di riproduzione ed alla struttura cariologica. *Bollettino di Zoologia*, 18, 117–122.
Omodeo, P. (1951) Problemi genetici connessi con la poliploidia di alcuni lombrichi. *Bollettino di Zoologia* 18, 123–129.
Omodeo, P. & Magaldi, A. (1951) Variabilità nei gemelli uniovulari di lombrico. *Scientia genetica*, 4, 13–21.
Omodeo, P. (1952) Cariologia dei Lumbricidae. *Caryologia*, 4, 173–275.
Omodeo, P. (1952) Oligocheti della Turchia. *Annuario dell'Istituto e Museo di Zoologia dell'Università di Napoli*, 4 (2), 1–18.
Omodeo, P. (1952) Particolarità della zoogeografia dei lombrichi. *Bollettino di Zoologia*, 19, 349–369.
Omodeo, P. (1952) Lumbricidae. In: Materiali zoologici raccolti dal Dott. Marcuzzi sulle Alpi dolomitiche. *Archivio Zoologico italiano*, 37, 29–59. [Reprinted as: Omodeo, P. (1953) Oligocheti lumbricidi raccolti dal Dr. Marcuzzi sulle Dolomiti. *Atti dell'Istituto Veneto di Scienze, Lettere ed Arti*, 112, 31–40].
Omodeo, P. (1953) Nota su alcuni lombrichi delle Alpi e considerazioni sul gen. *Helodrilus* di Hoffmeister. *Memorie del Museo Civico di Storia naturale di Verona*, 4, 75–85.
Omodeo, P. (1953) Specie e razze poliploidi di lombrichi. *Convegno di Genetica* (Supplemento a *La ricerca scientifica*), 23, 43–49.
Omodeo, P. (1953) Considerazioni sulla poliploidia nei lombrichi. *Bollettino della Società Italiana di Biologia Sperimentale*, 29, 1437–1439.
Omodeo, P. (1954) Alcuni lombrichi delle Alpi venete e della costa orientale dell'Adriatico. *Atti del Museo Civico di Storia naturale di Trieste*, 19, 121–135.
Omodeo, P. (1954) Problemi faunistici riguardanti gli Oligocheti terricoli della Sardegna. *Atti della Società Toscana di Scienze Naturali*, 61, Supplement, 3–15.
Omodeo, P. (1954) Aspetti biogeografici della speciazione. *Bollettino di Zoologia*, 21, 549–605.
Omodeo, P. (1955) Lombrichi cavernicoli di Grecia e Turchia, raccolti dal Dr. K. Lindberg. *Annuario dell'Istituto e Museo di Zoologia dell'Università di Napoli*, 7 (1), 1–16.
Omodeo, P. (1955) Oligocheti terricoli del Venezuela raccolti dal Dr. Marcuzzi. *Memorie del Museo Civico di Storia naturale di Verona*, 4, 199–212.
Omodeo, P. (1955) Eudrilinae e Octochaetinae della Costa d'Avorio (Oligochaeta). *Memorie del Museo Civico di Storia naturale*

di Verona, 4, 213–229.
Omodeo, P. (1955) Nuove specie dei generi a distribuzione anfiatlantica *Wegeneriella* e *Neogaster* (Acanthodrilidae, Oligochaeta). *Annuario dell'Istituto e Museo di Zoologia dell'Università di Napoli*, 7(3), 1–29.
Omodeo, P. (1955) Cariologia dei Lumbricidae. II contributo. *Caryologia*, 8, 135–178.
Omodeo, P. (1956) La polyploidie chez les lombriciens. In: *Proceedings XIV International Congress of Zoology, 1953, Copenhagen*, pp. 151–153.
Omodeo, P. (1956) Contributo alla revisione dei Lumbricidae. *Archivio zoologico italiano*, 41, 129–212.
Omodeo, P. (1956) Sistematica e distribuzione geografica degli Hormogastrinae (Oligocheti). *Archivio botanico e biogeografico italiano*, 32, 159–177.
Omodeo, P. (1956) I lombrichi dei Monti Sibillini e la drilofauna degli Appennini. *Memorie del Museo Civico di Storia naturale di Verona*, 5, 183–187.
Omodeo, P. (1956) Oligocheti dell'Indocina e del Mediterraneo orientale. *Memorie del Museo Civico di Storia naturale di Verona*, 5, 321–336.
Omodeo, P. (1956) Lumbricidae e Lumbriculidae della Groenlandia. *Atti della Società Toscana di Scienze Naturali*, (s. B.), 62, 105–128.
Omodeo, P. (1957) Lumbricidae and Lumbriculidae of Greenland. *Meddelelser om Grønland*, 124(6), 1–27.
Omodeo, P. (1958) Oligochètes. In: La réserve naturelle intégrale du Mont Nimba. *Mémoires de l'Institut français d'Afrique Noire*, 53, 9–109.
Omodeo, P. (1958) Oligocheti dei Monti Picentini e dell'Aspromonte. *Memorie del Museo Civico di Storia naturale di Verona*, 6, 405–412.
Omodeo, P. (1959) Oligocheti (Secondo contributo). In: Ricerche Zoologiche sul Massiccio del Pollino. *Annuario dell'Istituto e Museo dell'Università di Napoli*, 11(3), 1–7.
Omodeo, P. (1959) Oligocheti dell'Afghanistan (Contribution à l'étude de la faune de l'Afghanistan 5). *Bollettino di Zoologia*, 26, 1–20.
Omodeo, P. (1960) Oligocheti della Sicilia. *Memorie del Museo Civico di Storia naturale di Verona*, 8, 69–78.
Omodeo, P. (1961) Le peuplement des grandes îles de la Méditerranée par les Oligochètes terricoles. *Colloques internationaux du C.N.R.S.*, 44, 127–134.
Omodeo, P. (1961) Oligocheti della Francia Meridionale e di località limitrofe. *Memorie del Museo Civico di Storia naturale di Verona*, 9, 67–95.
Omodeo, P. (1962) Oligochètes des Alpes. I. *Memorie del Museo Civico di Storia naturale di Verona*, 10, 71–96.
Omodeo, P. (1962) Nota su alcuni Oligocheti iberici. *Bollettino di Zoologia*, 29, 73–78.
Omodeo, P. (1962) Oligochètes de l'Afghanistan. II (Contribution à l'étude de la faune de l'Afghanistan 61). *Atti dell'Accademia dei Fisiocritici*, (s. XIII), 11, 37–51.
Omodeo, P. (1963) Distribution of the terricolous Oligochaetes on the two shores of the Atlantic. *In*: Löve, A & Löve, D. (eds.) *North Atlantic Biota and their History*. Pergamon Press, Oxford, London, pp. 127–151.
Wasawo, D.P.S. & Omodeo, P. (1963) Some arboricolous Oligochaeta from Ivory Coast. *Memorie del Museo Civico di Storia naturale di Verona*, 11, 211–223.
Omodeo, P. (1964) Oligocheti della Sicilia. II. *Bollettino dell'Accademia Gioenia di Scienze naturali Catania* (s. IV) 8, 73–85.
Omodeo, P. & Vaillaud M. (1967) Les oligochètes de la savane de Gpakobo en Côte-d'Ivoire. *Bulletin de l'Institut français d'Afrique noire*, 29A(3), 925–944.
Omodeo, P. (1973) Oligochètes de l'Angola. *Publicações culturais da Companhia de Diamantes de Angola, Lisboa*, 87, 15–57.
Crespi, P., Martinucci, G.B. & Omodeo, P. (1979) Lumbricidi delle Alpi Orobie. *Bollettino di Zoologia*, 46 (Supplement), 82–83.
Omodeo, P. (1980) Teratology in earthworms (Annelida, Oligochaeta). *Pedobiologia*, 20, 146–147.
Omodeo, P. (1982) Zoologia. Anellidi. Emicordati. In: Grande enciclopedia illustrata degli animali. Invertebrati, 1. Mondadori, pp. 9–14; 109–120; 163–164.
Omodeo, P. & Crespi, P. (1982) Oligochaeta of the Pontine and Tuscan archipelagos. *Revue d'Ecologie et Biologie du Sol*, 19, 451–461.
Paoletti, M.G. & Omodeo, P. (1982) Fauna di lombrichi in relitti dei boschi planiziali veneti e in aziende agricole a monocoltura. *Redia*, 65, 51–63.
Martinucci, G.B., Crespi, P., Omodeo, P. Osella, G. & Traldi, G. (1983) Earthworms and TCDD (2,3,7,8 - tetrachlorodibenzo-p-dioxin) in Seveso. In: Satchell, J.E. (Ed.), *Earthworm ecology*. Chapman & Hall, London, pp. 275–283.
Omodeo, P. (1984) The earthworm fauna of Sardinia. *Revue d'Ecologie et Biologie du Sol*, 21, 115–126.
Giacomazzo, A., Bidoli, R., Robotti, C.A., Rodinò, E. & Omodeo, P. (1984) Diversità genetica in Oligocheti del genere *Eisenia*. *Bollettino di Zoologia*, 51 (Supplement), 54.
Omodeo, P. (1984) On aquatic Oligochaeta Lumbricomorpha in Europe. *Hydrobiologia*, 115, 187–190.
Omodeo, P. (1987) Some new species of Haplotaxidae (Oligochaeta) from Guinea and remarks on the history of the family. *Hydrobiologia*, 155, 1–13.
Omodeo, P. & Rota, E. (1987) Caractères originaux des peuplements des îles tyrrhéniennes en Oligochètes terricoles. *Bulletin de la Société Zoologique de France*, 112, 197–214.

Pagliai, A.M. & Omodeo, P. (Eds.) (1987) *On earthworms*. Selected Symposia and Monographs Unione Zoologica Italiana, 2. Mucchi, Modena. 562 pp.
Cobolli-Sbordoni, M., De Matthaeis, E., Omodeo, P., Bidoli, R. & Rodinò, E. (1987) Allozyme variation and divergence between diploid and triploid populations of *Allolobophora caliginosa* (Lumbricidae: Oligochaeta). In: Bonvicini Pagliai, A.M. & Omodeo, P. (Eds.), *On earthworms*. Selected Symposia and Monographs U.Z.I. 2. Mucchi, Modena, pp. 53–74.
Martinucci, G.B. & Omodeo, P. (1987) Comparison of the earthworm fauna of some oak forests in Italy and Algeria. In: Bonvicini Pagliai, A.M. & Omodeo, P. (Eds.), *On earthworms*. Selected Symposia and Monographs U.Z.I. 2. Mucchi, Modena, pp. 225–234.
Omodeo, P. & Martinucci, G.B. (1987) Earthworms of Maghreb. In: Pagliai, A.M. & Omodeo, P. (Eds.), *On earthworms*. Selected Symposia and Monographs U.Z.I. 2. Mucchi, Modena, pp. 235–250.
Omodeo, P. (1988) The genus *Eophila* (Lumbricidae, Oligochaeta). *Bollettino di Zoologia*, 55, 73–84.
Martinucci, G.B. & Omodeo, P. (1988) Oligocheti della Sicilia III. *Animalia*, 15, 233–247.
Rota, E. & Omodeo, P. (1988) Ipotesi di filogenesi dei Lumbricidae e forme affini. *Bollettino di Zoologia*, 55 (Suppl.), 86.
Omodeo, P. & Rota, E. (1989) Earthworms of Turkey I. *Bollettino di Zoologia*, 56, 167–199.
Omodeo, P. & Rota, E. (1991) Earthworms of Turkey II. *Bollettino di Zoologia*, 58, 171–181.
Colosimo, A., Rota, E. & Omodeo, P. (1991) A Hypercard program for the identification of biological specimens. *Cabios*, 7, 63–69.
Cobolli Sbordoni, M., De Matthaeis, E., Alonzi, A., Mattoccia, M., Omodeo, P. & Rota, E. (1992) Speciation, genetic divergence and palaeogeography in the Hormogastridae. *Soil Biology & Biochemistry*, 24, 1213–1221.
Rota, E. & Omodeo, P. (1992) Phylogeny of Lumbricina: re-examination of an authoritative hypothesis. *Soil Biology & Biochemistry*, 24, 1263–1278.
Erséus, C., Omodeo, P. & Rota, E. (1994) First records of the allochthonous species *Dichogaster saliens* and *D. bolaui* (Oligochaeta: Octochaetidae) from Sweden. *Megadrilogica*, 6, 17–20.
Minelli, A., Omodeo, P., Rota, E. & Sambugar, B. (1995) Annelida Clitellata, Aphanoneura. In: Minelli, A., Ruffo, S. & La Posta, S. (Eds.), Checklist delle specie della fauna italiana. Calderini, Bologna 20, 19 pp.
Omodeo, P. (1996) *Kathrynella,* a new oligochaete genus from Guyana. *Hydrobiologia*, 334, 11–25.
Omodeo, P. (1998) History of Clitellata. *Italian Journal of Zoology*, 65, 51–73.
https://doi.org/10.1080/11250009809386726
Omodeo, P. (2000) Evolution and biogeography of megadriles (Annelida, Clitellata): To Gilberto Righi (1937–1999), in memoriam. *Italian Journal of Zoology*, 67, 179–201.
https://doi.org/10.1080/11250000009356313
Omodeo, P. & Rota, E. (2000) Biogeographical patterns of terricolous oligochaetes in Turkey (Annelida: Clitellata: Lumbricidae, Enchytraeidae). *Biogeographia - Lavori Società Italiana di Biogeografia*, 20 (1999), 61–79.
Omodeo, P. & Coates, K.A. (2001) New alluroidids (Annelida, Clitellata) from Guyana. *Hydrobiologia*, 463, 39–47.
Omodeo, P. (2003) Adattamenti anatomo-funzionali dell'apparato vascolare degli Oligocheti. Abstracts 64th Congresso Nazionale Unione Zoologica Italiana, Varese, p. 42.
Omodeo, P., Rota, E. & Baha, M. (2003) The megadrile fauna (Annelida: Oligochaeta) of Maghreb: a biogeographical and ecological characterization. *Pedobiologia*, 47, 458–465.
https://doi.org/10.1078/0031-4056-00213
Omodeo, P. & Rota, E. (2004) Observaciones taxonomicas sobre las lombrices de tierra de los Alpes Occidentales/Taxonomic remarks on the earthworms inhabiting the Western Alps. *In*: Moreno, A.G. & Borges, S. (Eds.), *Avances en taxonomia de lombrices de tierra/Advances in earthworm taxonomy (Annelida: Oligochaeta)*. Editorial Complutense, Madrid, pp. 189–259.
Omodeo, P. & Rota, E. (2004) Oligocheta Megadrili. In: CKmap2000. Checklist e distribuzione della fauna italiana, http://www.faunaitalia.it/ckmap/index.html.
Omodeo, P. (2005) Sistematica e polimorfismo presso gli oligocheti terricoli. Abstracts 66th Congresso Nazionale Unione Zoologica Italiana, Roma, p. 57.
Omodeo, P., & Rota, E. (2005) Speciography and intrapopulation variability in lumbricids. *In*: Pop, V.V. & Pop, A.A. (Eds.), *Advances in earthworm taxonomy II (Annelida: Oligochaeta)*. Cluj University Press, Cluj-Napoca, Romania, pp. 3–16.
Omodeo, P., Rota, E. & Sambugar, B. (2005) Annelida Oligochaeta. *In*: Ruffo, S. & Stoch, F. (Eds.), Checklist e distribuzione della fauna italiana. 10.000 specie terrestri e delle acque interne. *Memorie del Museo Civico di Storia Naturale di Verona*, 2. Ser., sez. Scienze della Vita, 16, 73–76. (Reprinted in English: Omodeo, P., Rota, E. & Sambugar, B. (2006) Annelida Oligochaeta. *In*: Ruffo, S. & Stoch, F. (Eds.), Checklist and distribution of the Italian fauna. 10.000 terrestrial and inland water species. *Memorie del Museo Civico di Storia Naturale di Verona*, 2. Ser., sez. Scienze della Vita, 17, 73–76 (with data on CD-ROM).
Omodeo, P. & Rota, E. (2008) Earthworm diversity and land evolution in three Mediterranean districts. *Proceedings of the California Academy of Sciences*, 59 (Supplement 1), 65–83.
Rota, E., Marchán, D. & Omodeo, P. (2016) *Hormogaster regina* sp. n. (Annelida: Clitellata: Hormogastridae): A giant earthworm from Spanish Catalonia, described from morphological and molecular evidence. *Zoologischer Anzeiger*, 261, 56–65.
https://doi.org/10.1016/j.jcz.2016.03.002
Rota, E., Schembri, P.J. & Omodeo, P. (2017) Earthworms of Malta (Annelida: Clitellata: Acanthodrilidae, Hormogastridae,

Lumbricidae). *Zootaxa*, 4311 (2), 287–291.
https://doi.org/10.11646/zootaxa.4311.2.11
Rota, E., Martinsson, S., Erséus, C., Petushkov, V.N., Rodionova, N.S. & Omodeo, P. (2018) Green light to an integrative view of *Microscolex phosphoreus* (Dugès, 1837) (Annelida: Clitellata: Acanthodrilidae). *Zootaxa*, 4496 (1), 175–189.
https://doi.org/10.11646/zootaxa.4496.1.13
Martin, P., Omodeo, P. & Rota, E. (2021) On the nomenclatural status of some species of Haplotaxidae (Clitellata) from Guinea. *Zootaxa*, 4920 (1), 147–150.
https://doi.org/10.11646/zootaxa.4920.1.10

Appendix B

Checklist of the oligochaete taxa described by Pietro Omodeo (Annelida: Clitellata: Enchytraeidae; Haplotaxidae; Alluroididae; Almidae; Benhamiidae; Diporodrilidae; Eudrilidae; Hormogastridae; Lumbricidae; Megascolecidae; Rhinodrilidae)

EMILIA ROTA
Department of Physics, Earth and Environmental Sciences, University of Siena, Italy. E-mail: rota@unisi.it

Abstract

Pietro Omodeo described 10 new genus group taxa and about 100 species/subspecies of oligochaetes during his career, distributed today among 11 families and over 40 genera/subgenera. A complete list of the taxa described is presented here together with references to the original descriptions and the valid names.

Phylum Annelida Lamarck, 1802

Class Clitellata Michaelsen, 1919

Subclass Tubificata Jamieson, 1988

Order Enchytraeida Kasprzak, 1984

Family Enchytraeidae d'Udekem, 1855

Genus *Guaranidrilus* Černosvitov 1937

***Guaranidrilus lamottei* Omodeo, 1958**
Guaranidrilus lamottei Omodeo, 1958 Mém. Inst. franç. Afr. noire 53: 11.

Genus *Hemienchytraeus* Černosvitov 1934

***Hemienchytraeus inversus* Omodeo, 1958**
Hemienchytraeus inversus Omodeo, 1958 Mém. Inst. franç. Afr. noire 53: 14.

***Hemienchytraeus guineanus* Omodeo, 1958**
Hemienchytraeus guineanus Omodeo, 1958 Mém. Inst. franç. Afr. noire 53: 16.

Subclass Diplotesticulata Yamaguchi, 1953

Superorder Haplotaxidea Brinkhurst, 1984

Order Haplotaxida Brinkhurst, 1984

Family Haplotaxidae Michaelsen, 1900

Genus *Haplotaxis* Hoffmeister, 1843

***Haplotaxis villiersi* Omodeo, 1987**
Haplotaxis villiersi Omodeo, 1987 Hydrobiologia 155: 2.

Genus *Metataxis* Righi, 1985

***Metataxis carnivorus* Omodeo, 1987**
Metataxis carnivorus Omodeo, 1987 Hydrobiologia 155: 9.

***Metataxis falcifer* (Omodeo, 1958)**
Pelodrilus falcifer Omodeo, 1958 Mém. Inst. franç. Afr. noire 53: 19.
Metataxis falcifer: Righi 1985a:24; Omodeo 1987: 7.

Genus *Omodeodrilus* Kammerer, 2006

***Omodeodrilus guanivorus* (Omodeo, 1987)**
Villiersia guanivora Omodeo, 1987 Hydrobiologia 155: 5.
Villiersidrilus guanivorus: Martin, Rota & Omodeo 2021: 149.
Omodeodrilus guanivorus: Kammerer 2006: 270.

Superorder Megadrili Benham, 1890

Order Opisthopora Michaelsen, 1929

Suborder Alluroidina Jamieson, 1988

Family Alluroididae Michaelsen, 1900

Genus *Brinkhurstia* Jamieson, 1968

***Brinkhurstia donaldi* Omodeo & Coates, 2001**
Brinkhurstia donaldi Omodeo & Coates, 2001 Hydrobiologia 463: 40.

Genus *Kathrynella* Omodeo, 1996

***Kathrynella guyanae* Omodeo, 1996**
Kathrynella guyanae Omodeo, 1996 Hydrobiologia 334: 11.

Genus *Righiella* Omodeo & Coates, 2001

***Righiella jamiesoni* Omodeo & Coates, 2001**

Righiella jamiesoni Omodeo & Coates, 2001 Hydrobiologia 463: 45.

Suborder Crassiclitellata Jamieson, 1988

Family Almidae Duboscq, 1902

Genus Alma Grube, 1855

***Alma machadoi* Omodeo, 1973**

Alma machadoi Omodeo, 1973 Publ. Cult. Co. Diam. Angola 87: 33.

Family Benhamiidae Michaelsen, 1897

Genus *Afrogaster* Csuzdi, 2006

***Afrogaster africana* (Omodeo, 1955)**

Neogaster africana Omodeo, 1955a Ann. Mus. Univ. Napoli 7: 8.
Wegeneriella africana: Jamieson 1974: 74; Omodeo 2000: 194.
Pickfordia (Omodeoscolex) africana: Csuzdi 1993: 67 (part.); Csuzdi 1995: 117 (part.); Csuzdi 1996: 363 (part.).
Afrogaster africana: Csuzdi 2010: 108.

***Afrogaster cisatlantica* (Omodeo, 1955)**

Neogaster cisatlantica Omodeo, 1955 Ann. Mus. Univ. Napoli 7: 12.
Wegeneriella cisatlantica: Jamieson 1974: 74; Omodeo 2000: 194.
Pickfordia (Omodeoscolex) cisatlantica: Csuzdi 1993: 67.
Afrogaster cisatlantica: Csuzdi 2010: 109.

Genus *Agastrodrilus* Omodeo & Vaillaud, 1967

***Agastrodrilus multivesiculatus* Omodeo & Vaillaud, 1967**

Agastrodrilus multivesiculatus Omodeo & Vaillaud, 1967 Bull. Inst. franç. Afr. noire 29A(3): 932.

***Agastrodrilus opisthogynus* Omodeo & Vaillaud, 1967**

Agastrodrilus opisthogynus Omodeo & Vaillaud, 1967 Bull. Inst. franç. Afr. noire 29A(3): 926.

Genus *Benhamiona* Csuzdi & Zicsi, 1994

***Benhamiona balantina* (Omodeo, 1958)**

Benhamia balantina Omodeo, 1958 Mém. Inst. franç. Afr. noire 53: 46.
Benhamiona balantina: Csuzdi & Zicsi 1994: 221.

***Benhamiona capilliseta* (Omodeo, 1958)**

Benhamia capilliseta Omodeo, 1958 Mém. Inst. franç. Afr. noire 53: 57.
Benhamiona capilliseta: Csuzdi & Zicsi 1994: 221.

***Benhamiona guineana* (Omodeo, 1958)**

Benhamia rosea guineana Omodeo, 1958 Mém. Inst. franç. Afr. noire 53: 39.
Benhamiona guineana: Csuzdi & Zicsi 1994: 221.

Genus *Dichogaster* Beddard, 1888

Subgenus *Dichogaster* Beddard, 1888

***Dichogaster (Dichogaster) arboricola* Wasawo & Omodeo, 1963**

Dichogaster arboricola Wasawo & Omodeo, 1963 Mem. Mus. Civ. Stor. Nat. Verona 11: 213.
Dichogaster (Dichogaster) arboricola: Csuzdi 2010: 66.

***Dichogaster (Dichogaster) arcifera* Omodeo, 1958**

Dichogaster arcifera Omodeo, 1958 Mém. Inst. franç. Afr. noire 53: 68.
Dichogaster (Dichogaster) arcifera: Csuzdi 2010: 54.

***Dichogaster (Dichogaster) candida* Omodeo, 1958**

Dichogaster candida Omodeo, 1958 Mém. Inst. franç. Afr. noire 53: 70.
Dichogaster (Dichogaster) candida: Csuzdi 2010: 57.

***Dichogaster (Dichogaster) enchytraeus* Omodeo, 1958**

Dichogaster enchytraeus Omodeo, 1958 Mém. Inst. franç. Afr. noire 53: 84.
Dichogaster (Dichogaster) enchytraeus: Csuzdi 2010: 49.

***Dichogaster (Dichogaster) insularis* (Michaelsen, 1895)**

Dichogaster montistoi Omodeo, 1958 Mém. Inst. franç. Afr. noire 53: 67.
Syn. *Dichogaster (Dichogaster) insularis*: Csuzdi 2010: 67.

***Dichogaster (Dichogaster) lamottei* Omodeo, 1958**

Dichogaster lamottei Omodeo, 1958 Mém. Inst. franç. Afr. noire 53: 69.
Dichogaster (Dichogaster) lamottei: Csuzdi 2010: 62.

***Dichogaster (Dichogaster) leroyi* Omodeo, 1958**

Dichogaster leroyi Omodeo, 1958 Mém. Inst. franç. Afr. noire 53: 65.
Dichogaster (Dichogaster) leroyi: Csuzdi 2010: 66.

***Dichogaster (Dichogaster) nematochaeta* Omodeo, 1958**

Dichogaster nematochaeta Omodeo, 1958 Mém. Inst. franç. Afr. noire 53: 76.
Dichogaster (Dichogaster) nematochaeta: Csuzdi 2010: 46.

***Dichogaster (Dichogaster) notabilis* Omodeo, 1958**

Dichogaster notabilis Omodeo, 1958 Mém. Inst. franç. Afr. noire 53: 74.
Dichogaster (Dichogaster) notabilis: Csuzdi 2010: 46.

***Dichogaster (Dichogaster) papillosa* Omodeo, 1958**

Dichogaster papillosa Omodeo, 1958 Mém. Inst. franç. Afr. noire 53: 85.
Dichogaster (Dichogaster) papillosa: Csuzdi 2010: 49.

***Dichogaster (Dichogaster) penigera* Omodeo, 1958**

Dichogaster penigera Omodeo, 1958 Mém. Inst. franç. Afr. noire 53: 72.
Dichogaster (Dichogaster) penigera: Csuzdi 2010: 47.

***Dichogaster (Dichogaster) proandra* Omodeo, 1958**

Dichogaster proandra Omodeo, 1958 Mém. Inst. franç. Afr. noire 53: 78.
Dichogaster (Dichogaster) proandra: Csuzdi 2010: 50.

***Dichogaster (Dichogaster) septemdecim* Omodeo, 1958**

Dichogaster septemdecim Omodeo, 1958 Mém. Inst. franç. Afr. noire 53: 82.
Dichogaster (Dichogaster) septemdecim: Csuzdi 2010: 51.

***Dichogaster (Dichogaster) sexdecim* Omodeo, 1958**

Dichogaster sexdecim Omodeo, 1958 Mém. Inst. franç. Afr. noire 53: 81.
Dichogaster (Dichogaster) sexdecim: Csuzdi 2010: 51.

***Dichogaster (Dichogaster) singula* Omodeo, 1958**

Dichogaster singula Omodeo, 1958 Mém. Inst. franç. Afr. noire 53: 75.
Dichogaster (Dichogaster) singula: Csuzdi 2010: 64.

***Dichogaster (Dichogaster) terraenigrae* Omodeo & Vaillaud, 1967**

Dichogaster terrae-nigrae Omodeo & Vaillaud, 1967 Bull. Inst. franç. Afr. noire 29A(3): 934.
Benhamia terraenigrae: Csuzdi & Zicsi 1994: 218.
Dichogaster (Dichogaster) terraenigrae: Csuzdi 1995: 109; Csuzdi 2010: 64.

***Dichogaster (Dichogaster) tuzeti* Omodeo, 1955**

Dichogaster tuzeti Omodeo, 1955c Mem. Mus. Civ. St. Nat. Verona 4: 227.
Dichogaster (Dichogaster) tuzeti: Csuzdi 2010: 47.

***Dichogaster (Dichogaster) undecim* Omodeo, 1958**

Dichogaster undecim Omodeo, 1958 Mém. Inst. franç. Afr. noire 53: 79.
Dichogaster (Dichogaster) undecim: Csuzdi 2010: 52.

***Dichogaster (Dichogaster) wenkei* (Michaelsen, 1931)**

Dichogaster agilis Omodeo & Vaillaud 1967 Bull. Inst. franç. Afr. noire 29A(3): 936.
Syn. *Dichogaster (Dichogaster) wenkei*: Csuzdi 2010: 66.

Subgenus *Diplothecodrilus* Csuzdi, 1996

***Dichogaster (Diplothecodrilus) gracilis* (Michaelsen, 1892)**

Dichogaster gracilis var. *metandra* Omodeo, 1973 Publ. Cult. Co. Diam. Angola 87: 25.
Syn. *Dichogaster (Diplothecodrilus) gracilis*: Csuzdi 2010: 82.

***Dichogaster (Diplothecodrilus) hemiandra* Omodeo, 1973**

Dichogaster hemiandra Omodeo, 1973 Publ. Cult. Co. Diam. Angola 87: 31.
Dichogaster (Diplothecodrilus) hemiandra: Csuzdi 2010: 75.

***Dichogaster (Diplothecodrilus) machadoi* Omodeo, 1973**

Dichogaster machadoi Omodeo, 1973 Publ. Cult. Co. Diam. Angola 87: 29.
Dichogaster (Diplothecodrilus) machadoi: Csuzdi 2010: 76.

Genus *Guineoscolex* Csuzdi, 2006

***Guineoscolex coronatus* (Omodeo, 1958)**
Benhamia coronata Omodeo, 1958 Mém. Inst. franç. Afr. noire 53: 56.
Guineoscolex coronatus: Csuzdi & Zicsi 1994: 227.

***Guineoscolex mammillatus* (Omodeo, 1958)**
Benhamia mammillata Omodeo, 1958 Mém. Inst. franç. Afr. noire 53: 52.
Guineoscolex mammillatus: Csuzdi & Zicsi 1994: 227.

***Guineoscolex microscolecinus* (Omodeo, 1958)**
Benhamia microscolecina Omodeo, 1958 Mém. Inst. franç. Afr. noire 53: 54.
Guineoscolex microscolecinus: Csuzdi & Zicsi 1994: 227.

***Guineoscolex minusculus* (Omodeo, 1958)**
Benhamia minuscula Omodeo, 1958 Mém. Inst. franç. Afr. noire 53: 55.
Guineoscolex minusculus: Csuzdi & Zicsi 1994: 227.

***Guineoscolex nimbai* (Omodeo, 1958)**
Benhamia inaequalis nimbai Omodeo, 1958 Mém. Inst. franç. Afr. noire 53: 48.
Guineoscolex nimbai: Csuzdi et al. 2009: 63.

Genus *Millsonia* Beddard, 1894

***Millsonia lamtoiana* Omodeo & Vaillaud, 1967**
Millsonia lamtoiana Omodeo & Vaillaud, 1967 Bull. Inst. franç. Afr. noire 29A(3): 932.

***Millsonia meridionalis* Omodeo, 1973**
Millsonia meridionalis Omodeo, 1973 Publ. Cult. Co. Diam. Angola 87: 15.

Genus *Monothecodrilus* Csuzdi & Zicsi, 1994

***Monothecodrilus monotheca* (Omodeo, 1958)**
Benhamia monotheca Omodeo, 1958 Mém. Inst. franç. Afr. noire 53: 50.
Monothecodrilus monotheca: Csuzdi & Zicsi 1994: 228.

Genus *Pickfordia* Omodeo, 1958

***Pickfordia ditheca* Omodeo, 1958**
Pickfordia ditheca Omodeo, 1958 Mém. Inst. franç. Afr. noire 53: 34.

***Pickfordia hemibalantina* Omodeo, 1958**
Pickfordia hemibalantina Omodeo, 1958 Mém. Inst. franç. Afr. noire 53: 36.

***Pickfordia magnisetosa* Omodeo, 1958**
Pickfordia magnisetosa Omodeo, 1958 Mém. Inst. franç. Afr. noire 53: 30.

***Pickfordia pseudoplanaria* Omodeo, 1958**
Pickfordia pseudoplanaria Omodeo, 1958 Mém. Inst. franç. Afr. noire 53: 33.

Genus *Reginaldia* Csuzdi, 2006

Subgenus *Peritogaster* Csuzdi, 2006

***Reginaldia (Peritogaster) anomala* (Omodeo, 1955)**
Millsonia anomala Omodeo, 1955c Mem. Mus. Civ. St. Nat. Verona 4: 219.
Reginaldia (Peritogaster) anomala: Csuzdi 2006: 43.

***Reginaldia (Peritogaster) omodeoi* (Sims, 1986)**
Millsonia anomala f. *leptocystis* Omodeo & Vaillaud, 1967 Bull. Inst. franç. Afr. noire 29A(3): 929.
Syn. *Millsonia omodeoi* Sims, 1986: 304.
Reginaldia (Peritogaster) omodeoi: Csuzdi 2006: 43.

Genus *Wegeneriella* Michaelsen, 1933

***Wegeneriella monotheca* Omodeo, 1955**
Wegeneriella monotheca Omodeo, 1955a Ann. Mus. Univ. Napoli 7: 2.

Family Diporodrilidae Bouché, 1970

Genus *Diporodrilus* Bouché, 1970

***Diporodrilus bouchei* Omodeo, 1984**
Diporodrilus bouchei Omodeo, 1984 Rev. Ecol. Biol. Sol 21(1): 117.

Family Eudrilidae Claus, 1880

Genus *Buettneriodrilus* Michaelsen, 1897

***Buettneriodrilus aequatorialis angolanus* Omodeo, 1973**
Buettneriodrilus aequatorialis angolanus Omodeo, 1973 Publ. Cult. Co. Diam. Angola 87: 46.

***Buettneriodrilus dundoensis* Omodeo, 1973**
Buettneriodrilus dundoensis Omodeo, 1973 Publ. Cult. Co. Diam. Angola 87: 41.

***Buettneriodrilus macrocystis* Omodeo, 1973**
Buettneriodrilus macrocystis Omodeo, 1973 Publ. Cult. Co. Diam. Angola 87: 48.

***Buettneriodrilus sexcaliculatus* Omodeo, 1973**
Buettneriodrilus sexcaliculatus Omodeo, 1973 Publ. Cult. Co. Diam. Angola 87: 44.

Genus *Hyperiodrilus* Beddard, 1890

***Hyperiodrilus africanus vogelii* Omodeo, 1955**
Hyperiodrilus africanus f. *vogelii* Omodeo, 1955c Mem. Mus. Civ. Stor. Nat. Verona 4: 215.

Genus *Lavellea* Csuzdi & Tondoh, 2007

***Lavellea composita* (Omodeo, 1958)**

Scolecillus compositus Omodeo, 1958 Mém. Inst. franç. Afr. noire 53: 91.
Chuniodrilus compositus: Wasawo & Omodeo 1963: 222.
Lavellea composita: Csuzdi & Tondoh 2007: 2564.

***Lavellea vuattouxi* (Wasawo & Omodeo, 1963)**

Chuniodrilus vuattouxi Wasawo & Omodeo, 1963 Mem. Mus. Civ. Stor. Nat. Verona 11: 218.
Lavellea vuattouxi: Csuzdi & Tondoh 2007: 2563.

Genus *Stuhlmannia* Michaelsen, 1890

***Stuhlmannia dextera* Omodeo, 1973**

Stuhlmannia dextera Omodeo, 1973 Publ. Cult. Co. Diam. Angola 87: 36.

***Stuhlmannia palustris* (Omodeo & Vaillaud, 1967)**

Chuniodrilus palustris Omodeo & Vaillaud, 1967 Bull. Inst. franç. Afr. noire 29A(3): 938.
?Stuhlmannia palustris: Sims 1987: 380.

***Stuhlmannia porifera* Omodeo & Vaillaud, 1967**

Stuhlmannia porifera Omodeo & Vaillaud, 1967 Bull. Inst. franç. Afr. noire 29A(3): 941.

***Stuhlmannia simplex* (Omodeo, 1973)**

Platydrilus simplex Omodeo, 1973 Publ. Cult. Co. Diam. Angola 87: 39.
Stuhlmannia simplex: Sims 1987: 380.

***Stuhlmannia zielae* (Omodeo, 1958)**

Chuniodrilus zielae Omodeo, 1958 Mém. Inst. franç. Afr. noire 53: 87.
Stuhlmannia zielae: Sims 1987: 380.

Family Hormogastridae Michaelsen, 1900

Genus *Norana* Marchán et al. 2018

***Norana regina* (Rota, Marchán & Omodeo, 2016)**

Hormogaster regina Rota, Marchán & Omodeo, 2016 Zool. Anzeiger 261: 60.
Norana regina: Marchán et al. 2018: 89.

Family Lumbricidae Rafinesque, 1815

Genus *Allolobophora* Zicsi, 1986

***Allolobophora immaculata* Omodeo & Rota, 1989**

Allolobophora immaculata Omodeo & Rota, 1989 Boll. Zool. 56: 181.

***Allolobophora lanzai* (Omodeo, 1961)**

Eophila lanzai Omodeo, 1961 Mem. Mus. Civ. St. Nat. Verona 9: 83.
Allolobophora lanzai: Easton 1983: 476.

Genus *Aporrectodea* Örley, 1885

***Aporrectodea rosea* (Savigny, 1826)**

Eisenia rosea dendrobaenoides Omodeo, 1950 Ann. Ist. Mus. Zool. Univ. Napoli 2(10): 5.
Aporrectodea rosea: Easton 1983: 477.

Genus *Cernosvitovia* Omodeo, 1956

Allolobophora (Cernosvitovia) Omodeo, 1956 Arch. Zool. It. 41: 180.

Genus *Dendrobaena* Eisen, 1873

***Dendrobaena bruna* Omodeo & Rota, 1989**

Dendrobaena bruna Omodeo & Rota, 1989 Boll. Zool. 56: 196.

***Dendrobaena byblica* (Rosa, 1898)**

Dendrobaena schelkovnikovi graeca Omodeo, 1955a Ann. Ist. Zool. Univ. Napoli 7: 8.
Dendrobaena byblica: Easton 1983: 478.

***Dendrobaena fridericae* Omodeo & Rota, 1989**

Dendrobaena fridericae Omodeo & Rota, 1989 Boll. Zool. 56: 186.

***Dendrobaena fridericae uludagi* Omodeo & Rota, 1991**

Dendrobaena fridericae uludagi Omodeo & Rota, 1991 Boll. Zool. 58: 179.

***Dendrobaena juliana* Omodeo, 1954**

Dendrobaena schmidti f. *juliana* Omodeo, 1954 Atti. Mus. Civ. St. Nat. Trieste 19(3): 127.
Dendrobaena juliana: Easton 1983: 478.

***Dendrobaena nivalis* Omodeo & Rota, 1989**

Dendrobaena nivalis Omodeo & Rota, 1989 Boll. Zool. 56: 190.

***Dendrobaena pantaleonis eutypica* Omodeo & Rota, 1989**

Dendrobaena pantaleonis eutypica Omodeo & Rota, 1989 Boll. Zool. 56:185.

***Dendrobaena persimilis* Omodeo & Rota, 1989**

Dendrobaena nivalis Omodeo & Rota, 1989 Boll. Zool. 56: 193.

***Dendrobaena perula* Omodeo & Rota, 1989**

Dendrobaena perula Omodeo & Rota, 1989 Boll. Zool. 56: 195.

***Dendrobaena proandra* Omodeo & Rota, 1989**

Dendrobaena proandra Omodeo & Rota, 1989 Boll. Zool. 56: 193.

Genus *Dendrodrilus* Omodeo, 1956

Dendrobaena (Dendrodrilus) Omodeo, 1956 Arch. Zool. It. 41: 175.

Genus *Eiseniona* Omodeo, 1956

***Eiseniona sineporis* (Omodeo, 1952)**

Eiseniella balcanica sine-poris Omodeo, 1952 Arch. Zool. Ital. 37: 31.
Eiseniona sineporis: Omodeo 1956: 189.

Genus *Eumenescolex* Qiu & Bouché, 1998

***Eumenescolex gabriellae gabriellae* (Omodeo, 1984)**

Eiseniona gabriellae gabriellae Omodeo, 1984 Rev. Ecol. Biol. Sol 21(1): 118.
Eumenescolex gabriellae gabriellae: Qiu & Bouché 1998 : 6.

***Eumenescolex gabriellae gallurae* (Omodeo, 1984)**

Eiseniona gabriellae gallurae Omodeo, 1984 Rev. Ecol. Biol. Sol 21(1): 120.
Eumenescolex gabriellae gallurae: Qiu & Bouché 1998: 6.

Genus *Healyella* Omodeo & Rota, 1989

***Healyella boluana* Omodeo & Rota, 1989**

Healyella boluana Omodeo & Rota, 1989 Boll. Zool. 56: 176.

***Healyella mariae* Omodeo & Rota, 1989**

Healyella mariae Omodeo & Rota, 1989 Boll. Zool. 56: 175.

***Healyella michaelseni* Omodeo & Rota, 1989**

Healyella michaelseni Omodeo & Rota, 1989 Boll. Zool. 56: 174.

***Healyella naja* Omodeo & Rota, 1989**

Healyella naja Omodeo & Rota, 1989 Boll. Zool. 56: 176.

***Healyella syriaca* (Rosa, 1893)**

Eophila atheca kosswigi Omodeo; 1952 Ann. Mus. Univ. Napoli 4(2): 10.
Healyella kosswigi: Omodeo & Rota 1989: 174.
Syn. *Healyella syriaca*: Zicsi, 1973; Csuzdi et al. 2006: 22.

***Healyella zapparolii* Omodeo & Rota, 1989**

Healyella zapparolii Omodeo & Rota, 1989 Boll. Zool. 56: 177.

Genus *Microeophila* Omodeo, 1956

Allolobophora (Microeophila) Omodeo, 1956 Arch. Zool. It. 41: 183.

***Microeophila marcuzzii* (Omodeo, 1952)**

Eophila marcuzzii Omodeo, 1952 Arch. Zool. Ital. 37: 44.
Allolobophora (Microeophila) marcuzzii: Omodeo 1956: 184.

Genus *Murchieona* Gates, 1978

***Murchieona muldali* (Omodeo, 1956)**

Bimastos muldali Omodeo, 1956 Arch. Zool. Ital. 41: 179.

Genus *Octodriloides* Zicsi, 1986

***Octodriloides boninoi* (Omodeo, 1962)**

Octolasium boninoi Omodeo, 1962 Mem. Mus. Civ. St. Nat. Verona 10: 84.
Octodriloides boninoi: Zicsi 1986

***Octodriloides minor* (Omodeo, 1952)**

Octolasium (Octolasium) mima minore Omodeo, 1952 Arch. Zool. Ital. 37: 47.
Octolasium mima f. *minor* Omodeo 1953: 83.
Octolasium mima minor Omodeo 1954: Tab. III.
Octolasium (Octodrilus) mima minor: Omodeo 1956: 177.
Octodriloides minoris: Zicsi 1986: 107; Mrsic 1991: 436; Qiu & Bouché 1998: 193.

Genus *Octodrilus* Omodeo, 1956

Octolasium (Octodrilus) Omodeo, 1956 Arch. Zool. It. 41: 177.

***Octodrilus pseudocomplanatus* (Omodeo, 1962)**

Octolasium kamnense f. *pseudocomplanatum* Omodeo, 1962 Mem. Mus. Civ. St. Nat. Verona 10: 82.
Octodrilus pseudocomplanatus: Zicsi 1981: 159.

Genus *Spermophorodrilus* Bouché, 1975

***Spermophorodrilus simsoni* Omodeo & Rota, 1989**

Spermophorodrilus simsoni Omodeo & Rota, 1989 Boll. Zool. 56: 172.

***Spermophorodrilus vignai* Omodeo & Rota, 1989**

Spermophorodrilus vignai Omodeo & Rota, 1989 Boll. Zool. 56: 171.

Genus *Trapezonscolex* Qiu & Bouché, 1998

***Trapezonscolex cavazzutii cavazzutii* (Omodeo, 1988)**

Eophila cavazzutii cavazzutii Omodeo, 1988 Boll. Zool. 55(1/2): 75.
Eophila (Trapezonscolex) cavazzutii: Qiu & Bouché 1998b: 187.
Trapezonscolex cavazzutii cavazzutii: Szederjesi 2017: 105.

***Trapezonscolex cavazzutii pascuorum* (Omodeo, 1988)**

Eophila cavazzutii pascuorum Omodeo, 1988 Boll. Zool. 55(1/2): 76.
Eophila (Trapezonscolex) pascuorum: Qiu & Bouché 1998b: 187.
Trapezonscolex cavazzutii pascuorum: Szederjesi 2017: 105.

Family Megascolecidae Rosa, 1891

Genus *Metaphire* Sims & Easton, 1972

***Metaphire bahli* (Gates, 1945)**

Pheretima saigonensis Omodeo, 1956b Mem. Mus. Civ. St. Nat. Verona 5: 327.
Syn. *Metaphire bahli*: Nguyen et al. 2021: 34.

Family Rhinodrilidae Benham, 1890

Genus *Andiorrhinus* Cognetti de Martiis, 1908

***Andiorrhinus marcuzzii* Omodeo, 1955**

Andiorrhinus marcuzzii Omodeo, 1955b Mem. Mus. Civ. St. Nat. Verona 4: 204.

Genus *Urobenus* Benham, 1886

***Urobenus brevis* (Omodeo, 1955)**

Rhinodrilus papillifer f. *brevis* Omodeo, 1955b Mem. Mus. Civ. Stor. Nat. Verona 4: 199.
Urobenus brevis: Righi 1985b: 248.

References

Csuzdi, Cs. (1993) Über die taxonomischen Probleme einiger amphiatlantischer Regenwurm Gattungen (Oligochaeta, Octochaetidae). Regenwürmer aus Südamerika 18. *Acta Zoologica Hungarica*, 39, 61–69.

Csuzdi, Cs. (1995) A catalogue of Benhamiinae species (Annelida: Oligochaeta: Acanthodrilidae). *Annalen des Naturhistorischen Museums in Wien B*, 97, 99–123.

Csuzdi, Cs. (1996) Revision der Unterfamilie Benhamiinae Michaelsen, 1897 (Oligochaeta: Acanthodrilidae). *Mitteilungen aus dem Museum für Naturkundein Berlin*, 72, 347–367.

Csuzdi, Cs. (2006) West African earthworm genus *Millsonia* Beddard, 1894 (Oligochaeta: Acanthodrilidae, Benhamiinae) reviewed and separation of a new genus. *Acta zoologica Hungarica*, 52 (1), 35–48.

Csuzdi, Cs. (2010) *A monograph of the paleotropical Benhamiinae earthworms (Annelida: Oligochaeta, Acanthodrilidae)*. Hungarian Natural History Museum and Systematic Zoology Research Group of the Hungarian Academy of Sciences Budapest.

Csuzdi, Cs., Guei, M.A. & Tondoh, J.E. (2009) New and little known earthworm species from the Mt. Nimba, Guinea (Oligochaeta, Acanthodrilidae: Benhamiinae). *Zootaxa*, 2141, 56–68.

Csuzdi, Cs. & Tondoh, J.E. (2007) New and little-known earthworm species from the Ivory Coast (Oligochaeta: Acanthodrilidae: Benhamiinae and Eudrilidae). *Journal of Natural History*, 41(41–44), 2551–2567.

Csuzdi, Cs. & Zicsi, A. (1994) Revision der Gattung *Benhamia* Michaelsen, 1889 (Oligochaeta, Octochaetidae). *Revue suisse de Zoologie*, 101, 215–231.

Csuzdi, Cs., Zicsi, A. & Misirlioglu, I.M. (2006) An annotated checklist of the earthworm fauna of Turkey (Oligochaeta: Lumbricidae). *Zootaxa*, 1175, 1–29.

Easton, E.G. (1983) A guide to the valid names of Lumbricidae (Oligochaeta). *In*: Satchell, J.E. (Ed.) *Earthworm Ecology from Darwin to Vermiculture*, Chapman and Hall, London/New York, pp.475–487.

Gates, G.E. (1978) The earthworm genus *Lumbricus* in North America. *Megadrilogica*, 3(6), 81–116.

Jamieson, B.G.M. (1974) Generic type-species and other Megascolecidae (Annelida, Oligochaeta) in the Museum of Systematic Zoology, University of Turin. *Bollettino del Museo di Zoologia dell'Università di Torino*, 8, 57–88.

Kammerer, C.F. (2006) Notes on some preoccupied names in Arthropoda. *Acta Zootaxonomica Sinica*, 31(2), 269–271.

Marchán, D.F., Fernández, R., Sánchez, N., De Sosa, I., Díaz Cosín, D.J. & Novo, M. (2018) Insights into the diversity of Hormogastridae (Annelida, Oligochaeta) with descriptions of six new species. *Zootaxa*, 4496(1), 65–95.

Martin, P., Omodeo, P. & Rota, E. (2021) On the nomenclatural status of some species of Haplotaxidae (Clitellata) from Guinea. *Zootaxa*, 4920 (1), 147–150.

Mršić, N. (1991) Monograph on earthworms (Lumbricidae) of the Balkans I, II. Slovenska Akademija Znanosti in Umetnosti, Razred za Naravoslovne Vede, Opera, 31, Ljubljana, 757 pp.

Nguyen, T.T., Thai D.T.-N., Trang Y.T.-N., Duong V.T. (2021) Taxonomic status of the earthworm species *Metaphire saigonensis* (Omodeo, 1956) (Clitellata: Megascolecidae). *Natural Science, Journal of Science and Technology***,** 10, 2, 31–35.
Omodeo, P. (1950) Oligocheti, in: Ricerche zoologiche sul massiccio del Pollino. *Annuario dell'Istituto e Museo di Zoologia dell'Università di Napoli*, 2(10), 1–12.
Omodeo, P. (1954) Alcuni lombrichi delle Alpi venete e della costa orientale dell'Adriatico. *Atti del Museo Civico di Storia naturale di Trieste*, 19, 121–135.
Omodeo, P. (1955a) Nuove specie dei generi a distribuzione anfiatlantica *Wegeneriella* e *Neogaster* (Acanthodrilidae, Oligochaeta). *Annuario dell'Istituto e Museo di Zoologia dell'Università di Napoli*, 7(3), 1–29.
Omodeo, P. (1955b) Oligocheti terricoli del Venezuela raccolti dal Dr. Marcuzzi. *Memorie del Museo Civico di Storia naturale di Verona*, 4, 199–212.
Omodeo, P. (1955c) Eudrilinae e Octochaetinae della Costa d'Avorio (Oligochaeta). *Memorie del Museo Civico di Storia naturale di Verona*, 4, 213–229.
Omodeo, P. (1956a) Contributo alla revisione dei Lumbricidae. *Archivio zoologico italiano*, 41, 129–212.
Omodeo, P. (1956b) Oligocheti dell'Indocina e del Mediterraneo orientale. *Memorie del Museo Civico di Storia naturale di Verona*, 5, 321–336.
Omodeo, P. (1958) Oligochètes. In: La réserve naturelle intégrale du Mont Nimba. *Mémoires de l'Institut français d'Afrique noire*, 53, 9–109.
Omodeo, P. (1961) Oligocheti della Francia Meridionale e di località limitrofe. *Memorie del Museo Civico di Storia naturale di Verona*, 9, 67–95.
Omodeo, P. (1962) Oligochètes des Alpes. I. *Memorie del Museo Civico di Storia naturale di Verona*, 10, 71–96.
Omodeo, P. (1973) Oligochètes de l'Angola. *Publicações culturais da Companhia de Diamantes de Angola, Lisboa*, 87, 15–57.
Omodeo, P. (1984) The earthworm fauna of Sardinia. *Revue d'Ecologie et Biologie du Sol*, 21, 115–126.
Omodeo, P. (1987) Some new species of Haplotaxidae (Oligochaeta) from Guinea and remarks on the history of the family. *Hydrobiologia*, 155, 1–13.
Omodeo, P. (1988) The genus *Eophila* (Lumbricidae, Oligochaeta). *Bollettino di Zoologia*, 55, 73–84.
Omodeo, P. (1996) *Kathrynella,* a new oligochaete genus from Guyana. *Hydrobiologia*, 334, 11–25.
Omodeo, P. (2000) Evolution and biogeography of megadriles (Annelida, Clitellata): To Gilberto Righi (1937–1999), in memoriam. *Italian Journal of Zoology*, 67, 179–201.
Omodeo, P., Coates, K.A. (2001) New alluroidids (Annelida, Clitellata) from Guyana. *Hydrobiologia*, 463, 39–47.
Omodeo, P. & Rota, E. (1989) Earthworms of Turkey I. *Bollettino di Zoologia*, 56, 167–199.
Omodeo, P. & Rota, E. (1991) Earthworms of Turkey II. *Bollettino di Zoologia*, 58, 171–181.
Omodeo, P. & Vaillaud M. (1967) Les oligochètes de la savane de Gpakobo en Côte-d'Ivoire. *Bulletin de l'Institut français d'Afrique noire*, 29A(3), 925–944.
Qiu, J.-P. & Bouché, M. (1998a) *Eumenescolex*, nouveau genre de Lumbricidae (Annelida: Oligochaeta). *Documents pédozoologiques et intégrologiques*, 4, 3–7.
Qiu, J.-P. & Bouché, M. (1998b) Liste classée des taxons valides de lombriciens (Oligochaeta: Lumbricoidea) après l'étude des trois cinquième d'entre-eux. *Documents pédozoologiques et intégrologiques*, 4, 181–200.
Righi, G. (1985a) Dois novos Oligochaeta da Amazónia venezuelana. *Papéis Avulsos de Zoologia (São Paulo)*, 36, 23–30.
Righi, G. (1985b) Sobre *Rhinodrilus* e *Urobenus* (Oligochaeta, Glossoscolecidae). *Boletim de Zoologia, Universidade de São Paulo*, 9, 231–257.
Rota, E., Marchán, D. & Omodeo, P. (2016) *Hormogaster regina* sp. n. (Annelida: Clitellata: Hormogastridae): A giant earthworm from Spanish Catalonia, described from morphological and molecular evidence. *Zoologischer Anzeiger*, 261, 56–65.
Sims, R.W. (1986) Revision of the Western African earthworm genus *Millsonia* (Octochaetidae, Oligochaeta). *Bulletin of the British Museum (Natural History)*, 50, 273–313.
Sims, R.W. (1987) A review of the Central African earthworm family Eudrilidae (Oligochaeta). *In*: Bonvicini Pagliai, A.M. & Omodeo, P. (Eds.), *On earthworms*. Selected Symposia and Monographs U.Z.I. 2. Mucchi, Modena, pp. 359–388.
Szederjesi, T. (2017) The first combined checklist of earthworms of the Northeastern Mediterranean region (Clitellata: Megadrili). *Opuscula Zoologica, Budapest*, 48(2), 77–116.
Wasawo, D.P.S. & Omodeo, P. (1963) Some arboricolous Oligochaeta from Ivory Coast. *Memorie del Museo Civico di Storia naturale di Verona*, 11, 211–223.
Zicsi, A. (1973) Regenwürmer (Oligochaeta: Lumbricidae) aus der Türkei. *Acta Zoologica Academiae Scientiarum Hungaricae*, 19, 217–232.
Zicsi, A. (1981) Weitere Angaben zur Lumbricidenfauna Italiens (Oligochaeta: Lumbricidae). *Opuscula Zoologica, Budapest*, 17–18, 157–180.
Zicsi, A. (1986) Über die taxonomischen Probleme der Gattung *Octodrilus* Omodeo, 1956 und *Octodriloides* gen. n. (Oligochaeta: Lumbricidae). *Opuscula Zoologica, Budapest*, 22, 103–112.

Appendix C

Alphabetic list of the oligochaete taxa dedicated to Pietro Omodeo

EMILIA ROTA
Department of Physics, Earth and Environmental Sciences, University of Siena, Italy. E-mail: rota@unisi.it

Phylum ANNELIDA Lamarck, 1802

Class CLITELLATA Michaelsen, 1919

BENHAMIIDAE Michaelsen, 1897
Omodeona Sims, 1967: 32.
Omodeoscolex Csuzdi, 1993: 67.
Reginaldia omodeoi (Sims, 1986)
Millsonia anomala f. *leptocystis* Omodeo & Vaillaud, 1967: 929.
Millsonia omodeoi Sims, 1986: 304.

DIPORODRILIDAE Bouché, 1970
Diporodrilus omodeoi Bouché, 1970: 252.

ENCHYTRAEIDAE d'Udekem, 1855
Cernosvitoviella omodeoi Rota, 1995: 194.

EUDRILIDAE Claus, 1880
Petroscolex Csuzdi, Szederjesi & Sherlock, 2019: 504.
Petroscolex centenarius Csuzdi, Szederjesi & Sherlock, 2019: 504.

HAPLOTAXIDAE Michaelsen, 1900
Omodeodrilus Kammerer, 2006: 270.

HORMOGASTRIDAE Michaelsen, 1900
Xanina omodeoi (Díaz Cosín, Briones & Trigo, 1989)
Xana omodeoi Díaz Cosín, Briones & Trigo, 1989: 226.

LUMBRICIDAE Rafinesque, 1815
Allolobophora omodeoi Zajonc, 1963: 521.
Dendrobaena omodeoi Csuzdi, Pavlíček & Misirlioğlu, 2007: 352.
Eophila crodabepis Paoletti, 2016: 6.
(acronym from **C**anestrini, **Ro**sa, **Da**rwin, **Be**rlese, **Pi**etro Omodeo and **S**ilvestri)
Octodrilus omodeoi Zicsi, 1981: 164.
Omodeoia Kvavadze, 1993: 129.
Pietromodeona Qiu & Bouché, 1998a: 194.
Scherotheca (Corsicadrilus) omodeoi Qiu & Bouché, 1998b: 129.

MEGASCOLECIDAE Rosa, 1891
Amynthas omodeoi Zhao & Qiu, 2009: 1031.

NAIDIDAE Ehrenberg, 1831
Rhyacodrilus omodeoi Martínez-Ansemil, Samburgar & Giani, 1997: 34.

References

Bouché, M.B. (1970) Remarques sur quelques Lumbricina de France et consequences de la decouverte des noveaux taxons Vignysinae (Subfam. nov) et Diporodrilidae (Fam. nov.). *Pedobiologia,* 10**,** 246–256.

Csuzdi, Cs.(1993) Über die taxonomischen Probleme einiger amphiatlantischer Regenwurm Gattungen (Oligochaeta, Octochaetidae). Regenwürmer aus Südamerika 18. *Acta Zoologica Hungarica*, 39, 61–69.

Csuzdi, CS., Pavlíček, T. & Mısırlıoğlu, M. (2007) Earthworms (Oligochaeta: Lumbricidae, Criodrilidae and Acanthodrilidae) of Hatay Province, Turkey, with description of three new lumbricids. *Acta Zoologica Academiae Scientiarum Hungaricae,* 53, 347–361.

Csuzdi, Cs., Rota, E., Szederjesi, T., Sherlock, E., Brown, G.G., Chang, C.H., et al. (2019) Description of a new Central African earthworm, *Petroscolex centenarius* gen. et sp. nov. (Crassiclitellata, Eudrilidae), celebrating the 100th birthday of Pietro Omodeo. *Zootaxa,* 4674, 501–508.

Díaz Cosín, D.J., Briones, M.J.I. & Trigo, D. (1989) Descripción de una nueva especie de lombriz de tierra, *Xana omodeoi* (Hormogastridae, Oligochaeta) y sus implicaciones en la división de los Hormogastridae. *Revue d'Écologie et Biologie du Sol,* 26, 225–231.

Kammerer, C.F. (2006) Notes on some preoccupied names in Arthropoda. *Acta Zootaxonomica Sinica*, 31, 269–271.

Kvavadze, E. (1993) A new genus of earthworms *Omodeoia* gen. nov. *Bulletin of the Georgian Academy of Sciences*, 48, 129–134.

Kvavadze, E., Bakhtadze, N. & Bakhtadze, G. (2007) About validity of genus *Omodeoia* Kvavadze, 1993 (Oligochaeta, Lumbricidae). *Proceedings of the Georgian Academy of Sciences, Biological Series, B*, 5, 84–90.]

Martínez-Ansemil, E., Sambugar, B. & Giani, N. (1997) Groundwater Oligochaetes from Southern-Europe. I. A new genus and three new species of Rhyacodrilinae (Tubificidae) with a redescription of *Tubifex pescei* (Dumnicka) comb. n. *Annales de Limnologie-International Journal of Limnology,* 33, 33–44.

Paoletti, M.G, Blakemore, R.J., Csuzdi, Cs., Dorigo, L, Dreon, A.L., Gavinelli, F., *et al.* (2016) Barcoding *Eophila crodabepis* sp. nov. (Annelida, Oligochaeta, Lumbricidae), a large stripy earthworm from Alpine foothills of Northeastern Italy similar to *Eophila tellinii* (Rosa, 1888). *PLoS ONE*, 11(3), e0151799.

Qiu, J.P. & Bouché, M.B. (1998a) Révision des taxons supraspécifiques de Lumbricoidea. *Documents pédozoologiques et intégrologiques*, 3, 179–216.

Qiu, J.P. & Bouché, M.B. (1998b) Révision morphologique, chorologique et taxonomique du genre *Scherotheca* Bouché, 1972 (Oligochaeta: Lumbricidae). *Documents pédozoologiques et intégrologiques*, 4, 117–139.

Rota, E. (1995) Italian Enchytraeidae. I. *Bollettino di Zoologia*, 62, 183–231.

Sims, R. (1967) Earthworms (Acanthodrilidae and Eudrilidae: Oligochaeta) from Gambia. *Bull. Brit. Mus. Nat. Hist. (Zool.)*, 16, 1–44.

Sims, R.W. (1986) Revision of the Western African earthworm genus *Millsonia* (Octochaetidae, Oligochaeta). *Bulletin of the British Museum (Natural History)*, 50, 273–313.

Zajonc, I. (1963) *Allolobophora omodeoi* n. sp. Neue Regenwurm-Art (Oligochaeta, Lumbricidae) aus der Ostslowakei. *Biologia Bratislava*, 18, 521–524.

Zhao, Q., Sun, J. & Qiu, J.P. (2009) Three new species of the *Amynthas hawayanus*-group (Oligochaeta: Megascolecidae) from Hainan Island, China. *Journal of Natural History*, 43, 1027–1041.

Zicsi, A. (1981) Weitere Angaben zur Lumbricidenfauna Italiens (Oligochaeta: Lumbricidae). Opuscula Zoologica, Budapest, 17–18, 157–180.