Vol. 7(4): 275–291 **FOLIA DALACOLOGICA** JSSN 1506-7629 The Association of Polish Malacologists & Faculty of Biology, Adam Mickiewicz University Poznań 1999

### POLISH MALACOLOGY - PAST, PRESENT AND FUTURE

BEATA M. POKRYSZKO<sup>1</sup> & ADOLF RIEDEL<sup>2</sup>

<sup>1</sup>Museum of Natural History, Wrocław University, Sienkiewicza 21, 50-335 Wrocław, Poland (e-mail: bepok@culex.biol.uni.wroc.pl)

<sup>2</sup>Museum and Institute of Zoology, Polish Academy of Sciences, Wilcza 64, 00-679 Warszawa, Poland

ABSTRACT: The Polish malacology was born over 125 years ago. In the 19th century there were two malacological centres: Cracow-Lwów and Warsaw. In the former, faunistic malacology developed intensely in 1870–1890. The studies in Warsaw, started roughly at the same time, focused on studying malacofauna of the Polish Kingdom and on systematic research worldwide; the first worldwide shell collection in Poland was founded there. The most important achievements of the pre-war Polish malacology are: discovery and description of the malacofauna of the lake Baikal (B. DYBOWSKI & W. DYBOWSKI); monographs of tropical Helicinidae and Palaearctic Clausiliidae, application of anatomical characters to lower-level taxonomy (A. WAGNER); studies on endemic malacofauna of the Ohrida lake (W. POLIŃSKI). At present the main malacological centres in terms of the number of malacologists and/or collections are: Warsaw, Wrocław, Cracow, Poznań, Łódź and Katowice. The studies focus mainly on systematics, phylogeny, zoogeography and life cycles of land snails, ecology of aquatic molluscs and malacocenoses, systematics and phylogeny of aquatic prosobranchs and bivalves, Tertiary and Quaternary molluscs. Important mollusc collections are kept at the Museum and Institute of Zoology PAS (Warsaw), Museum of Natural History, Wrocław University, Institute of Animal Systematics and Evolution PAS (Cracow) and at the Museum of Zoology, Jagiellonian University. Polish Malacological Seminars have been organized each year since 1985. Folia Malacologica, the only malacological journal in Poland, was founded in 1987; it appeared in 1987–1994, and recently (1998) has been resurrected after a long break. The Association of Polish Malacologists was established in 1995, and in 1996 started publishing a newsletter. In spite of financial difficulties of scientific institutions and employment problems, the number of active, professional malacologists is not decreasing.

KEY WORDS: Poland, malacology, history

#### INTRODUCTION

This article was originally intended only as a lecture presented during the 15th Polish Malacological Seminar – since it was the 15th anniversary of the first malacological meeting in Poland, the Association of Polish Malacologists decided to celebrate (which it did: for the report and abstracts see this volume: 261–274). The Seminar required a breath of history, and someone had to provide it. Two people were chosen for this task: the Junior Author who is the only member of the Association actively interested in history, and the Senior Author who had attended all the previous Seminars and still remembered most of recent malacological events. The Association of Polish Malacologists was founded as late as 1995, but prior to that date our malacology had had an over 125-year tradition. In the 19th century there existed two malacological centres: Cracow-Lwów and Warsaw. Paradoxically, the Polish malacology kept on existing even at the time when there was no Poland on the map of Europe! Between World Wars I and II, these two main centres were joined by Poznań, where malacology had then only started to develop. After World War II, many other centres and institutions could be added to these three, and later still the Association of Polish Malacologists was founded. Since history is easier to discuss when divided into periods, we will call the period from the 19th century till the end of World War II the pre-war history of the Polish malacology. The time between the end of World War II and the present will be discussed under the post-war history – general outline. Within the post-war period most attention will be paid to the most recent time – from 1985 on-

wards, because the First Polish Malacological Seminar took place in 1985; this brief but eventful phase will be referred to as history of the Association of Polish Malacologists.

#### PRE-WAR HISTORY



Fig. 1. Malacological centres on a map of Poland between World Wars I and II

#### CRACOW-LWÓW

In the Cracow-Lwów centre (Fig. 1) in 1870–1890 faunistic malacology developed and thrived, thanks to a group of scientists gathered around M. SIŁA-NOWICKI and the Physiographic Commission. Due to B. KOTULA and J. BAKOWSKI the former Galicia<sup>1</sup> became one of the malacologically best studied areas in Europe. A monograph of molluscs of Galicia and partly other areas of Poland, prepared but not finished by J. BAKOWSKI, and later completed and edited by M. A. ŁOMNICKI, was published in 1892 in Lwów.

The following malacologists worked in Cracow and/or Lwów:

JAN JACHNO (1840–1895), who dealt mainly with molluscs of western Galicia and published a paper on the subject;

ŻEGOTA IGNACY KRÓL (1846–1881), who published several papers on molluscs of eastern and central Galicia;

BOLESŁAW KOTULA (1849–1898), who published two papers: on molluscs of the region of Przemyśl and on the vertical distribution of molluscs in the Tatra Mts (the latter paper quite up to modern standards) (Figs 2, 4);



Fig. 2. BOLESŁAW KOTULA, 1849–1898

STEFAN STOBIECKI (1859–1944), who studied, among others, molluscs of the mountain Babia Góra (Beskidy Mts);

<sup>&</sup>lt;sup>1</sup> The name Galicia is usually associated with a province in Spain, but the first meaning in WEBSTER's Dictionary is "a former crown land of Austria, included in S Poland after World War I" (and now partly in Ukraine).

-Friedel.

"Lamornin Pau Addyon Ricklovi w wrongitym Anin 3 Kirither, 1952, od j.t. Felileinen

# MUZEUM

WE LWOWIE

III.

MUZEUM IMIENIA DZIEDUSZYCKICH WE LWOWIE.

DZIAŁ I.

ZOOLOGICZNY

ODDZIAŁ ZWIERZĄT BEZKRĘGOWYCH.

 $\mathsf{M} \mid \mathsf{E} \mathsf{C} \mathsf{Z} \mathsf{A} \mathsf{K} \mathsf{I}.$ 

SPISAL J. BĄKOWSKI,

> UZUPEŁNIŁ A. M. ŁOMNICKI.

WE LWOWIE Z I. Związkowej Drukarni we Lwowie 1892.

Fig. 3. Cover (left) and title page (right) of BAKOWSKI & ŁOMNICKI's (1892) monograph of molluscs of Galicia, with handwritten dedication from ST. FELIKSIAK to A. RIEDEL. A. RIEDEL's library

ANTONI WIERZEJSKI (1843–1916), who collected molluscs and gave them to colleagues-malacologists;

JÓZEF BĄKOWSKI (1848–1887), who was a specialist in the Polish malacofauna and published 12 papers, mainly on eastern Galicia, and a comprehensive account of molluscs of Galicia (Figs 3, 4).

#### WARSAW

Studies that started more or less at the same time in Warsaw initially concentrated on the malacofauna of the Polish Kingdom (A. ŚLÓSARSKI, publications of 1872–1883), but the research there was much less intense and at a lower level, compared to that in Cracow; it extended to systematics, ecology and zoogeography and gained intensity only in the 20th century, after World War I, and since that time it has continued, being only briefly interrupted by World War II. Outstanding malacologists active in Warsaw after World War I were A. WAGNER and W. POLIŃSKI. The first Polish collection of worldwide mollusc shells (W. LUBOMIRSKI) was established in Warsaw. It was the only centre where malacological studies have continued since the 1870s (A. ŚLÓSARSKI) till present, and almost from the beginning their scope went beyond the native fauna.

The main characters of this centre were:

Prince WŁADYSŁAW LUBOMIRSKI (1824–1882), who collected mollusc shells from all over the world and established the first worldwide collection in Poland (ca. 8,000 species) (Figs 5, 6, 11);

ANTONI ŚLÓSARSKI (1843–1897), who wrote 7 papers on molluscs of the Polish Kingdom;

ANTONI JÓZEF WAGNER (1860–1928), who worked in Warsaw only during the last 10 years of his life and published monographs of Helicinidae and Clausiliidae as well as studies on Balkan molluscs, and was the first to apply anatomical characters to lower-level taxonomy (Figs 7, 8, 11);

WŁADYSŁAW KAROL ALEKSANDER POLIŃSKI (1885–1930), who collected and studied molluscs of C and NE Poland; he published also taxonomic papers on the helicids of Poland, on some groups of Alpine and Carpathian helicids, American clausiliids and molluscs of the Ohrida lake (Figs 9–11);

WACŁAW ANDRZEJ TADEUSZ ROSZKOWSKI (1886–1944), who dealt with lymnaeids on a wide geographic scale, but produced no comprehensive paper;

ANTONI JANKOWSKI (1874–1945), who was an amateur-collector, associated with the Warsaw Museum; his main publication is a paper on molluscs of Warsaw;

STANISŁAW FELIKSIAK (1906–1992), who wrote a paper on molluscs of the filter plant in Warsaw and of

Komisyja fizyjogr. akademieka upa antivertigon of Hotula. Frem L. zb. /X Komisyja fizyjograficzna akademicka. Inpa bygmata: Mieiseowos Jupa pygmaca Dr. Chrysow Puper antivortigo 2 Komisyja fizyjogr. akademieka. Komisyja fizyjogr, akademicka. Accusilia plicata, Pupa substriata Jeffs Proj. Kotula Przemny L. zb. ZX YTTI So lawritia plicata Drajo ubedriate mud Dugien Promyol. Komisyja fizyjogr. akademicka. Komisyja fizyjogr. akademicka. Accusilia plicata Dra var. tenusitienta Bak. Clausilia Patestriata Zebral Labie, Prof Bakowski Mikulisryn Bielz zebrał Prof. Kotula, Roiniator L. zb. ZX L. zb. Clanvilia plicate & Claus, Indestriada - Entre, Mikuliayon var, teruistriata Roiniatow.

Fig. 4. Handwritten labels from KOTULA's (left) and BAKOWSKI's (right) collections. Small labels below large labels written by W. KULCZYŃSKI; specimens kept at present at the Institute of Animal Systematics and Evolution, Polish Academy of Sciences



Władysław Ks. Lubomirski.

Fig. 5. Prince WŁADYSŁAW LUBOMIRSKI, 1824–1882



Fig. 7. ANTONI JÓZEF WAGNER, 1860–1928



Fig. 6. A plate from LUBOMIRSKI's "Notice sur quelques coquilles du Perou", Proceedings of the Scientific Meetings of the Zoological Society of London, 1879

the Bison Reserve in Białowieża, small notes on aquatic molluscs and a treatise on *Myxas glutinosa*.

#### POZNAŃ

Of the three pre-war malacological centres it was the latest to develop. Under Prussian occupation only one malacologist was active there. After World War I Poznań had two, and soon before World War II, three malacologists who studied mainly the malacofauna of Wielkopolska, partly NE Poland, Polesie and the Pieniny Mts.

The pre-war Poznań malacologists were:

FELICJAN SYPNIEWSKI (1822–1877), who assembled, among others, a collection of molluscs of Wielkopolska;

MARIA MŁODZIANOWSKA-DYRDOWSKA (1885– 1931) who studied the malacofauna of Wielkopolska; she published two papers on it and one on molluscs of the region of Wilno;

Überreicht vom Verfasser EX LIBRIS A. J. Wagner cica: *bibliotheca* malacologica» I. Z. PAN - Warszawa BEITRÄGE ZUR ANATOMIE UN OPHOREN AUS GEBIE DEM DER MONARCHIE UND DER ANGRENZEN BALKANLÄNDER VON DR. A. J. WAGNER K. u. K. OBERSTABSARZT d. R. IN DIEMLACH BEI BRUCK a. d. MUR, STEIERMARK Mit 24 Tafeln BESONDERS ABGEDRUCKT AUS DEM 91. BANDE DER DENKSCHRIFTEN DER MATHEMATISCH-NATURWISSENSCHAFTLICHEN KLASSE DER KAISERLICHEN AKADEMIE DER WISSENSCHAFTEN WIEN 1915 AUS DER KAISERLICH-KÖNIGLICHEN HOF- UND STAATSDRUCKEREI IN KOMMISSION BEI ALFRED HÖLDER K. U. K. HOF- UND UNIVERSITÄTSBUCHHÄNDLER BUCHHÄNDLER DER KAISERLICHEN AKADEMIE DER WISSENSCHAFTEN

Fig. 8. Cover of WAGNER's (1915) monograph of stylommatophorans of the Balkan countries, with WAGNER's inscription and signature (right), FELIKSIAK's (top) and RIEDEL's (left) notes. Malacological Library, Museum and Institute of Zoology, Polish Academy of Sciences



Fig. 9. WŁADYSŁAW KAROL ALEKSANDER POLIŃSKI, 1885-1930

JERZY ADAMOWICZ (1908–1939), who continued studies in the then NE Poland and published several faunistic-ecological papers on molluscs of Polesie;

JAROSŁAW URBAŃSKI (1909–1981) who at that time dealt with molluscs of Wielkopolska and the Pieniny Mts. (see also below).

The most important achievements of the pre-war malacology in Poland were: discovery and description of endemic malacofauna of the lake Baikal (B. DYBOWSKI & W. DYBOWSKI, none of them mentioned above, since they were not associated with any centre and not malacologists in the strict sense); monographs of tropical Helicinidae and Palaearctic Clausiliidae, application of anatomical characters to lower-level taxonomy (A. WAGNER) and studies on the endemic malacofauna of the Ohrida lake (W. POLIŃSKI) (Fig. 10).

#### POST-WAR HISTORY

#### GENERAL OUTLINE

The Warsaw centre resumed its activities just after World War II; at that time STANISŁAW FELIKSIAK was still working there, soon joined by ADOLF RIEDEL.

Blickece Parister Musicum 2006 400 4. Polinich.

Д-р Владислов Полински

## лимнолошка испитивања БАЛКАНСКОГ ПОЛУОСТРВА

І. РЕЛИКТНА ФАУНА ГАСТЕРОПОДА ОХРИДСКОГ ЈЕЗЕРА

Dr. Wladyslaw Polinski



## LA FAUNE RELIQUAIRE DES GASTÉROPODES DU LAC D'OCHRIDA

Из СХХХVII књиге Гласа Срп. Краљ. Академије.

EX LIBRIS «bibliocheod melaco I. Z. PAN - Warshing БЕОГРАД

ШТАМПАРИЈА "СВ. САВА", М. СЛАДЕКОВИЋА Бранкова 16. — Телефон 249. 1929.

Fig. 10. Cover of POLIŃSKI's (1929) monograph of molluscs of the Ohrida lake, with Author's handwritten dedication to the Museum Library. A version published in Serbian which is now a rarity (a better known version was published in Zoologische Jahrbücher - Systematik, in 1932, after POLIŃSKI's death, supplemented and edited by ST. FELIKSIAK). Malacological Library, Museum and Institute of Zoology, Polish Academy of Sciences

Later the centre, initially located at the present Museum and Institute of Zoology, Polish Academy of Sciences (PAS), was joined by members of the staff of





Aegopis skanderbegianus Paliniki 1919 Albanja: 3 Km. NE ed Strany na i dar. 1924 Wel typ.deicr

Verligo moulinsiana Dup. pow. Garwolin: maj. Trojanow Maskossenej rojimosci bagionni, pup tonate w put w tronturni, zakovstani jom, utantorati.

Fig. 11. Handwritten labels from JELSKI's (top left), LUBOMIRSKI's (top right), WAGNER's (centre), POLIŃSKI's (bottom left), and JANKOWSKI's (bottom right) collections; except JANKOWSKI's (Department of General Zoology, Adam Mickiewicz University), all specimens kept at present at the Museum and Institute of Zoology, Polish Academy of Sciences

the University and other institutions (TOMASZ UMIŃSKI, ANNA KALINOWSKA, ANDRZEJ KOŁODZIEJ-CZYK, KRZYSZTOF LEWANDOWSKI) and, because of the double activity of ANNA STAŃCZYKOWSKA-PIOTROWSKA (Warsaw University and Pedagogical University in Siedlce) who has infected many young people with her hydro-malacological passion, it can be now regarded as Warsaw-Siedlce centre. The Warsaw collection includes valuable pre-war materials (collections of W. LUBOMIRSKI, K. JELSKI, A. WAGNER, O. RETOW-SKI, W. POLIŃSKI), and materials accumulated by the Museum staff during their trips to various parts of the world; at present the best represented mollusc group is zonitids.

After World War II the Poznań centre was, next to Warsaw, the first to resume its malacological activities; its main malacologist at that time was JAROSŁAW URBAŃSKI (Figs 12, 13). URBAŃSKI had been active already before the war (see above), and then resumed his studies in 1946. He published numerous papers, among others over 50 papers on molluscs. His main achievements were: the only, till now, identification key to all the Polish malacofauna, comprehensive accounts of molluscs of Wielkopolska and the Pieniny Mts, and "Krytyczny przegląd mięczaków Polski" [A critical review of the molluscs of Poland] (Fig. 14). His taxonomic-zoogeographic and ecological studies on the malacofauna of the Balkan Peninsula resulted in 19 publications. He was the founder of the Poznań malacological school, and some of his students or his younger colleagues later obtained scientific positions in other institutions. At present malacologists active in Poznań are MARIA JACKIEWICZ, KAZIMIERZ STEPCZAK with his Department staff, ANDRZEJ DZIĘCZKOWSKI, ADAM WOJCIECHOWSKI and ANDRZEJ LESICKI. Poznań is seat of the Association of Polish Malacologists, and our journal Folia Malacologica is published there. Though it has no museum mollusc



Interim

Fig. 12. JAROSŁAW URBAŃSKI, 1909-1981

collection, URBAŃSKI's collection is kept there, as well as JANKOWSKI's collection given by the latter to URBAŃSKI.

After World War II Wrocław returned to Poland, with its partly damaged but generally rather well preserved mollusc collection, composed mainly of exotic marine snails and bivalves, and a collection of terrestrial and freshwater molluscs, mostly from Silesia, but with no malacologist. The first post-war malacologist was ANDRZEJ WIKTOR, who started working at the Museum of Natural History in the 60s, later (80s) joined by BEATA M. POKRYSZKO and quite recently by a few doctoral students. At present the best represented group in the collection is slugs.

Cracow, with its collection including among others those of J. BĄKOWSKI and B. KOTULA, had no malacologist for a long time after World War II. Mollusc lovers started appearing only as late as the 60s and 70s: EWA STWORZEWICZ, ANNA DYDUCH-FALNIOWSKA and ANDRZEJ FALNIOWSKI, both with their students and co-workers, STEFAN W. ALEXANDROWICZ (with his co-workers, among others his son WITOLD), who had left foraminifers for molluscs, which act later turned out to be providential for the Polish malacology (see below). At present the most valuable materials in the Cracow collection are Tertiary shells from the Bełchatów deposits (Institute of Animal Systematics and Evolution).

The malacological centres whose history started after World War II are Łódź (malacological research at the University started rather early by ANDRZEJ PIECHOCKI), Toruń (research initiated in the 50s by ARNOLD DROZDOWSKI, Mikołaj Kopernik University), Katowice, Szczecin and Gdańsk-Gdynia, as well as some institutions where at present only one or two malacologists are active (see map: Fig. 15).

What is going on now in all these institutions? The malacologists of the Warsaw-Siedlee centre (Museum

Zhiór Jarosława Urbańskiego Nazwa: <u>Hzydrokia (Pres-</u> <u>popyrgula) prespaensis J.</u> Miejsce znal.: Jezioro Prespa k. Asamati (Jur gost.). Data: 1x. 3y. leg.: Jurc.

Fig. 13. Two sides of URBAŃSKI's label of one of his type specimens. Specimen in the type collection of the Museum of Natural History, Wrocław University



Fig. 14. Cover of URBAŃSKI's (1947) "Krytyczny przegląd mięczaków Polski" [A critical review of the molluscs of Poland], with handwritten dedication to E. RADECKA. A. WIKTOR's library

and Institute of Zoology PAS, Institute of Ecology PAS, Warsaw University, Pedagogical University in Siedlce) deal with systematics and zoogeography of terrestrial snails, ecology of aquatic molluscs and malacocenoses, the Wrocław malacologists (Museum of Natural History, Wrocław University) study systematics, phylogeny, zoogeography and life cycles of terrestrial gastropods, and recently also physiology (Department of Animal Physiology, Wrocław University); the Cracow people (Institute of Animal Systematics and Evolution, PAS, Department of Nature Protection, PAS, Academy of Mining and Metallurgy, Jagiellonian University, Institute of Animal Husbandry) - systematics and phylogeny of aquatic prosobranchs and bivalves, Tertiary and Quaternary molluscs, ecology of aquatic and terrestrial malacocenoses, and heliculture; the Poznań malacologists (Adam Mickiewicz University, PAS) applied malacology, life cycles and ecology of terrestrial malacocenoses and subfossil aquatic assemblages, and recently also physiology and molecular taxonomy; in Łódź (University of Łódź), Katowice (Silesian University), Szczecin (University of Szczecin, Agricultural University) and Gdańsk-Gdynia (University of Gdańsk, Marine Fishery Institute, Polish Institute of Geology, Pedagogical University in Słupsk) mainly ecology of aquatic malacocenoses is practiced; in Toruń (Mikołaj Kopernik University) – research on aquatic and terrestrial malacocenoses, and parasites of molluscs, in Kielce (Pedagogical University) – studies on terrestrial malacocenoses.

While the pre-war Polish malacology focused mainly on faunistics on one hand, and taxonomy (sometimes combined with ecology and zoogeography) on the other, the present situation is quite different. It should be remembered, however, that in the 19th and at the beginning of the 20th century the necessity of mostly faunistic and taxonomic studies in all the regions of the world resulted from the state of knowledge of the malacofauna. Besides, there was no strict division into faunistics and taxonomy, ecology and zoogeography, and faunistic papers often contained also taxonomic, ecological or zoogeographic considerations.

Now (see also graph in Fig. 17) most Polish malacologists deal either with ecology of aquatic and terrestrial malacocenoses, including some aspects of nature conservancy, or with taxonomy in broad sense, including also some aspects of zoogeography, evolution and life cycles. Within taxonomy, much attention is paid to: 1. comprehensive monographs of generic-, family- or superfamily level taxa worldwide, Palaearctic or European (of snails Lymnaeidae, Zonitidae, Hydrobioidea, various slug families, vari-



Fig. 15. Distribution map of malacological centres (cities/institutions with at least one active malacologist). Largest circles denote many malacologists or a few malacologists plus collection: Warsaw, Wrocław, Cracow, Poznań. Medium-sized circles – a few malacologists (Łódź, Katowice, Toruń, Siedlce, Szczecin and Gdańsk-Gdynia); small circles – one or two malacologists ous taxa of Pupilloidea, of bivalves Unionidae, Sphaeriidae), and 2. variation in morphological or allozymic characters within species of various taxa. With respect to popularity, fossil and subfossil mollusc assemblages, from the Tertiary upwards, occupy the third position (older shells are within the scope of interest of geologists, and the inventory of these was not available to us). Faunistic papers, pertaining to this or that area of Poland, are constantly published and, despite the somewhat scornful attitude to faunistics, this is good, because: 1. almost every young malacologist who starts with faunistics, will learn to collect and identify; and 2. such papers provide detailed zoogeographic data and material for collections. Some other scientists devote their time to studies "below the animal level": histo-, cyto- and embryological, and also physiological. Finally, some malacologists focus on population genetics, and others on malaco-parasitology, but these areas are definitely less popular. Anyway, at present there are very many branches of malacology, both in Poland and in the world. Though most of our research can be classified as basic science, the results are sometimes of significance outside malacology. The ecological and eco-faunistic studies are of importance for nature conservation, research on the biology and life cycles of e.g. *Helix pomatia*, zebra mussel, pest slugs and snails - parasite vectors border on applied malacology, while data on fossil and subfossil mollusc assemblages are stratigraphically useful.

Publications of Polish malacologists appear most often in such journals as Annales Zoologici, Malakologische Abhandlungen, Fragmenta Faunistica, Archiv für Molluskenkunde, Genus, Journal of Conchology, Folia Malacologica, Acta Zoologica Cracoviensia, and in series Fauna Polski [Fauna of Poland], Fauna Słodkowodna Polski [Freshwater Fauna of Poland], Monografie Fauny Polski [Monographs of the Polish Fauna]; some papers on aquatic molluscs are published in Hydrobiologia and Polskie Archiwum Hydrobiologiczne [Polish Archive of Hydrobiology], and those on fossil molluscs – in Folia Quaternaria and Paläontologische Zeitschrift.

Teaching and popularization activities of some of our malacologists are worth mention. KAZIMIERZ STEPCZAK specializes in primary school biology textbooks, TOMASZ UMIŃSKI writes handbooks on ecology and biogeography. Several malacologists write popular books (e. g. the well-known "Świat Muszli" [The World of Shells] by ANDRZEJ SAMEK and his – still in press – atlas of marine shells) and articles, translate books and are scientific consultants of natural history books and films. Malacological museum exhibitions or exhibitions where a part at least is about molluscs, are to be found in Cracow (two) and Wrocław (one). An exhibition in Warsaw, organized several years ago by the Museum and Institute of Zoology, PAS, was later modified and supplemented, traveled all over the country and was exhibited in various local museums.

Significant malacological collections are kept at the Museum and Institute of Zoology, PAS (Warsaw: the largest collection, at present unfortunately almost inaccessible because of financial and housing difficulties), Museum of Natural History, Wrocław University, Institute of Animal Systematics and Evolution, PAS (Cracow) and Museum of Zoology, Jagiellonian University (Cracow; the latter collection of mostly exhibition significance). Though none of these institutions has a regular acquisition policy, the collections are constantly increased as a result of collecting specimens by specialists in various mollusc taxa, donations, exchange or obtaining specimens in return for identification.

Regarding contacts with foreign institutions, we can speak only about taxonomists; we do not know exactly about contacts of, say, mollusc geneticists or parasitologists. Malacologists-systematists are in contact with practically all institutions in which malacological collections are kept: among others in London, Paris, Berlin, Frankfurt, Leiden, Brussels, Vienna, Stockholm, Gothenburg, Moscow, St. Petersburg, Prague, Chicago, Cardiff, Washington, Brisbane, Sydney, Adelaide and even in Peking. Likewise, participation in international meetings and projects, and membership in international organizations is indicative of our contacts. Since 1977 several (2-8) Polish malacologists have participated in consecutive International Malacological Congresses. Our malacologists take part in preparing "Die Landschnecken Nord- und Mitteleuropas", a critical nomenclature review of terrestrial and freshwater molluscs of Central Europe, a malacological bibliography of Greece and a check-list of terrestrial and freshwater molluscs of Turkey; they contribute to an international project on Pleistocene faunas, to collecting data on threatened habitats and are active in IUCN.

## HISTORY OF THE ASSOCIATION OF POLISH MALACOLOGISTS

The last 15 years are the most important from the viewpoint of the extant Polish malacologists – during that period all the Malacological Seminars took place, and the Association was founded. How did it start? In the spring 1984 Profesor ALEXANDROWICZ decided to organize the First Polish Malacological Seminar, and there was no starting point, not even an address list, so first he had to make an inventory of malacologists. To think that we have just celebrated the Fifteenth Seminar, and the Association is alive and kicking!

The first seven Seminars were held at the conference centre Granit in Krościenko on Dunajec and were



Fig. 16. Distribution map of all the fifteen malacological seminars; Krościenko is indisputably the first (7 seminars, largest circle), followed by Obrzycko (2) and Łódź (2) (medium-sized circles), the other sites (small circles) hosted the seminar members once each, but we have managed to cover the whole country almost evenly (and may one day our localities be as dense as those of some common snails!)

organized by STEFAN W. ALEXANDROWICZ (Academy of Mining and Metallurgy, Cracow), with assistance of invaluable Mrs KAZIMIERA CHRZĄSZCZ, the Eight and Tenth were prepared by KAZIMIERZ STEPCZAK and his colleagues (Adam Mickiewicz University) in Obrzycko, the Ninth – by the Wrocław University (BEATA M. POKRYSZKO, ANDRZEJ WIKTOR and co-workers) in Mysłów in the Kaczawskie Mts, the Eleventh by ANDRZEJ KOŁODZIEJCZYK (University of Warsaw) in Giżycko in the Mazurian Lakeland, the Twelfth and the Fifteenth – by ANDRZEJ PIECHOCKI and his Department staff (University of Łódź) in Łódź, the Thirteenth by STANISŁAW PIOTROWSKI and his colleagues (University of Szczecin) in Świnoujście, and the Fourteenth by JADWIGA BARGA-WIĘCŁAWSKA (Pedagogical University in Kielce) in Wólka Milanowska in the Świętokrzyskie Mts (Fig. 16). Some Seminars (from 11th till 15th) have been described in detail in the newsletter Ślimakurier, regretfully in Polish.

Who came to the Seminars and what kind of malacology was going on there?

It the graph in Figure 17 the number of papers/posters is the number of presentations proposed but not necessarily presented - in some few cases people intending to present their results (i. e. having both the results and the intention) could not attend a Seminar for the reasons beyond their control; these numbers better reflect the trends in malacology; besides, the numbers of proposed and actually presented papers/posters are very close. The graph reveals two trends. Firstly, during the first few Seminars the number of participants and presentations shows some slight two-year fluctuations; this probably was the reason for some proposals (wisely ignored by the majority) to organize the Seminars every two years instead of yearly. Secondly, there is a general, though slow, increasing trend with respect to both number of participants and of presentations, except the 1997 breakdown which had mainly financial reasons.

The values denoting the mean number of presentations per participant, shown in the graph in Figure 17, are always below 1, but perhaps this is good – even those who have not managed to prepare a presentation, or were too shy to do so, attended the meetings and listened.

It is difficult to divide malacology precisely into branches or aspects. In the graph in Figure 18 we have treated aquatic malacology as including ecology, taxonomy, faunistics, parasitology etc. of aquatic molluscs, terrestrial malacology includes the respective aspects of land molluscs; fossil malacology refers to fossil and subfossil terrestrial and aquatic species



Fig. 17. The number of participants (white bars) and presentations (black bars) during each of the fifteen Malacological Seminars. The values above white bars denote the mean number of presentations per participant



Fig. 18. Percentage of presentations dealing with various aspects of aquatic, terrestrial, fossil/subfossil molluscs and other problems

and assemblages, while other problems include theoretical aspects of taxonomy, historical papers, collection and curatorial problems etc. Each of the main topical groups forms a large proportion and has an almost 100% constancy (except papers on fossil fauna in 1997); at the beginning land prevailed over water, then the proportions changed in favour of aquatic malacofauna. Another division of our presentations into aspects is shown in Figure 19.

In the graph in Figure 19 there is no particular trend; the main aspects (taxonomy, ecology plus conservation, fossil/subfossil assemblages) are constantly represented at a similar proportion while the remaining aspects are present on and off. Since participation in a Seminar and preparing a presentation are often determined by random factors, a total graph is shown in Figure 20.



Fig. 19. Proportion of presentations on various aspects of malacology - the division of malacology here is different from that in Figure 18, and the graph includes only selected years



Fig. 20. Proportion of interest devoted to various aspects of malacology by all the Polish malacologists. Division into aspects as in Figure 19

To draw the graph in Figure 20, each of the 120 persons from the address list of Ślimakurier was assigned one or more aspects, depending on the person's interests (a person interested in e. g. three aspects being counted thrice, etc.), and the percent-

age was calculated. The proportions are very similar to those shown in Figure 19. The most popular aspect is ecology plus conservation (to a large extent aquatic, cf. also Fig. 18), followed by taxonomy plus zoogeography and life cycles, then come fos-



Fig. 21. Covers of two of the Seminar Abstract Volumes

sil/subfossil assemblages and faunistics (the latter perhaps because many beginner malacologists start with it).

The topical structure of Polish malacology looks like that in Figure 20. Its age structure is also interesting. In 1986 only 8% of the Seminar participants were young malacologists. A young malacologist is a diploma student, doctoral student and an M. Sc. during the first five years of employment. In 1992 the proportion increased to 20%, and in 1998 to 30%, even though the 1986 young malacologists were no longer young in 1992, and were re-classified accordingly. The percentage of young malacologists among the 120 persons interested in malacology is ca. 35. The only question is how the commonly observed process of "scientific staff growing old" (and thus also malacological staff) in various institutions relates to this. It does not. Most of these young malacologists are diploma and doctoral students, who will probably have great problems to find a job.

Besides the presentations, important things happened during some of the Seminars. Our journal Folia Malacologica was founded in 1987, and resurrected in 1998 (for the history of the Folia see below, and Editorial in Folia Malacologica 6 (1–4)). Since 1993 it has been possible to present posters, besides papers. Since 1994 abstract volumes have been published (six such volumes till now) (Fig. 21), and also in 1994 we decided to found the Association of Polish Malacologists, a dream which came true a year later (1995). The Association newsletter has been published since 1996. The most important of these events are discussed below.

Folia Malacologica. The journal was Professor ALEXANDROWICZ's idea, and it came into existence in 1987, before we even became the Association. It was the first malacological journal in Poland and is still the only one. The Author of the idea was its first Editor in Chief. Somewhat atypically, the journal was financed by the Academy of Mining and Metallurgy in Cracow. Four volumes appeared in 1987–1990 (Fig. 22), and then, after a longish break, one more volume was published in 1994. That year, for financial reasons, the Academy had to resign some of its journals, and the first to be cancelled were those that had nothing to do with mining and metallurgy. Formally, the next owner of the title was the Silesian University in Katowice. From 1994 to 1998 the situation remained fairly hopeless. The Dean of the Faculty of Biology, Silesian University, promised to provide funds on the condition that there would be manuscripts. The malacologists, who in the meantime had got used to publishing elsewhere, promised to submit manuscripts on the condition that... there would be funds.



Fig. 22. Cover of one of the first issues of Folia Malacologica

1506-7699 The Association of Polish Malacologists & Faculty of Biology, Adam Mickiewicz University Poznań 1999

Fig. 23. Cover of a recent issue of Folia Malacologica

Repeated appeals to the malacological community (both spoken – during several general assemblies, and written – published in the newsletter) were to no avail. In April 1998 (14th Seminar) the already existing Association took over the journal, in what may seem like a coup-d'état. Surprisingly, this time it worked! The journal was finally resurrected and this is our fifth post-resurrection issue (Fig. 23). Editors, this time with no division into senior and junior ones, are ANDRZEJ LESICKI, MAŁGORZATA STRZELEC and BEATA M. POKRYSZKO.

Association. It is difficult, or even impossible, to separate the history of the Association from the history of the Seminars. The regularly meeting malacological community was born in 1985, and to tell the truth it did not matter to us if we were a formal association or society. During several years we existed as Malacological Section within the Committee for Quaternary Studies, but apparently malacologists are an independent lot, for the fact of being a section of a committee did not seem to excite us very much. Perhaps for this reason in 1994 we decided to found the Association of Polish Malacologists. In 1995 the Association was already there, formally, with its own Statutes, President, Council, and membership dues to pay. ADAM WOJCIECHOWSKI was elected the first President (and this year was re-elected for the next term),



Fig. 24. Certificate of Honorary Membership of the Aossociation of Polish Malacologists



Fig. 25. Cover of a recent issue of Ślimakurier

Vice-President BEATA M. POKRYSZKO (re-elected again), Treasurer ANDRZEJ LESICKI (re-elected), Secretary ANDRZEJ KOŁODZIEJCZYK. The founder-members were: STEFAN W. ALEXANDROWICZ, WITOLD P. ALEXANDROWICZ, JADWIGA BARGA-WIĘCŁAWSKA, KATARZYNA BULMAN, ARNOLD DROZDOWSKI, ANDRZEJ DZIĘCZKOWSKI, ANNA DYDUCH-FALNIOWSKA, MIROSŁAW GRUŻEWSKI, ANDRZEJ KOŁODZIEJCZYK, ELŻBIETA KORALEWSKA-BATURA, MARIOLA KRODKIEWSKA, ANDRZEJ LESICKI, TOMASZ MALTZ, STANISŁAW MYZYK, AGATA NITKA-PIEKARSKA, JERZY NITYCHORUK, ZBIGNIEW PIESIK, ZBIGNIEW POKORA, BEATA M. POKRYSZKO, ADOLF RIEDEL, RADOSŁAW STOCZKOWSKI, MAŁGORZATA STRZELEC, KRYSTYNA SZYBIAK, CEZARY TAJER, TOMASZ UMIŃSKI, BRYGIDA WAWRZYNIAK-WYDROWSKA, ANDRZEI EWA WŁOSIK-BIEŃCZAK, WIKTOR, ADAM WOJCIECHOWSKI and KATARZYNA ZAJĄC. Now the Association has 71 members which is nearly 60% people registered as "interested in malacology" (there are 120 people on the list). Five of them are honorary members, of merit for the Association, or malacology in general, or both: STEFAN W. ALEXANDROWICZ, KAZIMIERA CHRZĄSZCZ, MARIA JACKIEWICZ, ADOLF RIEDEL and ANDRZEJ WIKTOR (Fig. 24).

Newsletter. In 1996 the Association started producing a newsletter Ślimakurier [Snailcourier] (Fig. 25). The newsletter is published irregularly, as need dictates. It has no scientific objectives. It is supposed to inform the malacologists of important events, provide up-dated address lists, advertise some books and criticize others, publish Seminar reports, remind the Association members to pay their dues, and also spread a variety of malacological gossip and make fun. Twelve issues have been published till now. It is mailed charge-free not only to the Association members, but to all the people from the address list of persons interested in malacology.

#### CONCLUSIONS

Finally, summarizing our history, four questions should be answered. First: is Polish malacology better or worse off than it was at the beginning of its history? Second: is there anything we have gained from the Seminars and the Association? Third: what is the position of the Polish malacology in the world? Fourth: what will our further fate be?

The present Polish malacology is at least as good as at the beginning of its history: there are more of us, and we represent more aspects of malacology, we have things we did not have before: a journal, regular meetings and access to literature, extensive contacts with foreign institutions; we publish at least some of our papers in decent journals; there are many diploma and doctoral students.

The things we have gained thanks to being an organized malacological community (Seminars, Association) are: the possibility to meet regularly on a workshop basis, and thus to consult, very important especially for beginner-malacologists, a journal where we can publish, and information exchange. With respect to the number of active malacologists, and the degree to which their publications are read and cited abroad, the leading countries are USA, England, Germany, the Netherlands, Russia, Belgium, Australia... and we.

The tendency to cancel scientific positions instead of replacing retiring malacologists with young people is disheartening. Equally so are problems with research funding. In spite of this the further fate of Polish malacology is not disturbing - malacology has many aspects and even if those who decide about the funds manage to exterminate systematics as an "ancient" science, there will still remain ecology, genetics, malacostratigraphy etc. - just because we deal with so many aspects of a mollusc. It is optimistic, though, that in spite of financial difficulties of scientific institutions and of job-seeking problems, the number of active, professional malacologists is not decreasing. Of the 120 people from the address list of Ślimakurier, 90 devote at least a part of their working time to an aspect of malacology. May they all work happi