



Professor Krzysztof Birkenmajer at his laboratory in Kraków, 2006
(phot. A. M. Kobos)

Professor Krzysztof Birkenmajer's 85th Anniversary Celebrations

by Jarosław Tyszka¹, Przemysław Gedl² & Ewa Zastawniak-Birkenmajer³

SCIENTIFIC SESSION

The Scientific Session devoted to the 85th Anniversary of the birth of Professor Krzysztof Birkenmajer was organized on 28th of November, 2014 in the chambers of the Polish Academy of Sciences and Letters in Cracow. Its programme included the following:

- Prof. Dr Marek Lewandowski, Director of the Institute of Geological Sciences, Polish Academy of Sciences, Warsaw – *Opening*
- Prof. Dr Jan Środoń, Head of the Cracow Branch of the Institute of Geological Sciences, Polish Academy of Sciences – *From Warsaw to Cracow, a life and scientific history of Professor K. Birkenmajer*
- Prof. Dr Jacek Jania (Silesian University, Sosnowiec) – *Glacial morphology against the geological structure of South Spitsbergen. The significance of Prof. K. Birkenmajer's studies*
- Dr Błażej Błażejowski (Institute of Palaeobiology, Polish Academy of Sciences, Warsaw) – *Biotic associations from the Palaeozoic/Mesozoic boundary of the Arctic (in the wake of Prof. K. Birkenmajer's studies)*
- Prof. Dr Krzysztof P. Krajewski (Institute of Geological Sciences, Polish Academy of Sciences, Warsaw) – *The origin and development of the Antarctic cryosphere in Prof. K. Birkenmajer's studies*
- Dr hab. Jarosław Tyszka (Institute of Geological Sciences, Polish Academy of Sciences, Cracow Branch) – *Outline of the litostratigraphy, and geological evolution during the Jurassic and Early Cretaceous in the Pieniny Klippen Belt, in Prof. K. Birkenmajer's studies*
- Dr hab. Marta Bąk (Academy of Mining and Metallurgy, Cracow) & Dr hab. Krzysztof Bąk (Pedagogical University, Cracow) – *Outline of the litostratigraphy and geological evolution of the Pieniny Klippen Belt, West Carpathians, during the Late Cretaceous in Prof. K. Birkenmajer's studies*
- Prof. Dr Alfred Uchman (Institute of Geological Sciences, Jagiellonian University) – *In the footsteps of Prof. K. Birkenmajer: his Tatra Mts studies.*

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Closing words by Professor K. Birkenmajer

Dear Organizers, Lecturers and Guests,

First of all, I would like to express my warmest thanks for deciding to come to this Session. The organizers certainly made things lively. The lecturers did their best to evaluate my scientific work over the years in order to find some achievements worth presenting to the public. Finally, the numerous guests I see in this room do not seem bored – and this gives me a great pleasure.

Now, I wish to add a few closing words answering the question: How did I happen to become a geologist ?!

I was still in my pre-school years, when my parents gave me a thick and heavy book – Brehm's "Life of Animals". This book, richly illustrated with black-and-white photographs, became very important to me. When going to the Warsaw Zoological Gardens, and this happened quite frequently, I was always prepared to meet and name my numerous animal friends, and to listen to their life stories.

And this was the time when my father was translating Rudyard Kipling's famous "Jungle Book" into Polish. So, I happily greeted the grey wolf pack from the Council Rock – wanted to caress the panther Bagheera and the very fat bear Baloo – though this was certainly not allowed. And had harsh words for that treacherous tiger Shere Khan.

When I had already learned to read, my father presented me with another book – "How the Tatra Mts Originated" by Prof. Edward Passendorfer. This booklet was not as richly illustrated as the "Life of Animals". Nevertheless, it helped me to recognize and name some Jurassic fossils: ammonites, brachiopods and belemnites which I had collected during my final holidays before the war at Złoty Potok in the Polish Jura Chain.

During the siege of Warsaw (1939), my father – as a reserve officer of the Polish army – fought against the invading Germans while defending the Capital of Poland from the enemy. And it is there that he lost his life in the battle at the end of September.

During the dreadful German occupation years (1939-1945), my beloved Zoological Gardens were closed and I wasn't able to visit my animal friends. Fortunately, there were still travel books written by naturalists and explorers. They allowed me to learn of pristine lands and wild animals, and of the people who lived in primitive conditions far away. That is how I encountered Greenland for the first time.

Expelled from my home by the Germans after the fall of the Warsaw Uprising (1944), I found a place to live in Cracow. Here, after graduating from the Lycee, I chose geology as the main focus of my higher education, undertaken at the Department of Geology of the Jagiellonian University headed by Prof. M. Książkiewicz. As a 2nd year student, I became an Assistant at the Geology Department. There, I became friends with Dr Stanisław Siedlecki, a member and leader of the Polish polar expeditions to Svalbard (1932/33, 1934, 1936) and West Greenland (1937), who tutored me in field geology and accompanied me on mountaineering trips in the Tatra Mts.

Despite the dire political situation in my country, my growing experience with fieldwork in the mountains gave me the feeling that the Arctic – my geological dream – was coming within reach. In 1956, under Siedlecki's leadership, I became a member of a 5-man team sent by the Polish Academy of Sciences to Norway and Spitsbergen, in order to find a site for the Polish Scientific Station of the 3rd International Geophysical Year. Supported by Prof. Stefan Zbigniew Różycki, an experienced polar explorer, who worked in Torell Land in 1934 as a geologist in the first Polish Spitsbergen Expedition, and became chairman of the Polish Commission for Expeditions during the 3rd International Geophysical Year, I began my life-long polar experience. Spitsbergen was to become my favourite location for scientific expeditions, 13 in all, up to the year 2002. Besides these, I took part, as a member or leader, in scientific expeditions to East Greenland (2 expeditions) and to West Antarctica (8 expeditions). The snowy polar countries fascinated me for the whole of my life.

The instruction at the university also, of course, required me to study in my own country. As a 2nd grade student, I was already making a start to my fieldwork in the Pieniny Mountains (West Carpathians), helping Professor Stanisław Sokołowski with the description of drillings and the preparation of a detailed geological map (1:500 scale) for a planned water dam. I successfully cooperated with the famous nature protection activists, Professors Władysław Szafer (a botanist) and Walery Goetel (a geologist), and the Pieniny National Park personnel, to exert pressure on the engineers to modify the water-dam project in such a manner as to make it less harmful to nature.

When I began my polar expeditions, it appeared that my engagement in the Arctic would leave much less time for my Carpathian studies. And here my old friend Professor Edward Passendorfer came to the rescue: he proposed that I defend my doctoral thesis on the stratigraphy of the Pieniny Klippen Belt at the Warsaw University, where he was a Dean of the Geology Faculty. This in fact happened during the spring of 1957, just before I was to become thoroughly engaged in the activities of the 3rd International Geophysical Year.

My children who once loved when I came back from Spitsbergen and Norway with white teddy bears or with a white puppy dog of Zakopane pedigree born at our Spitsbergen Station, now have their own children, and even grandchildren. My son and his daughter became my assistants in Spitsbergen, and my son-in-law in Antarctica.

This meeting is also a very pleasant opportunity for me to express my gratitude to those who participated in my difficult and often dangerous polar fieldwork, and to those who elaborated on my rich collections of animal and plant fossils. Many scientific problems would still be waiting to be solved had it not been for their valuable contributions.

And once again – Hurrah to the organizers of this friendly meeting!

KRZYSZTOF BIRKENMAJER'S LIFE HISTORY

Krzysztof Ludwik Birkenmajer, professor emeritus at the Institute of Geological Sciences, Polish Academy of Sciences, Kraków, Poland, was born in Warsaw (Poland) on 6th October, 1929. He was the third child of Professor Józef Antoni Birkenmajer and Maria Alicja Birkenmajer, née Jętkiewicz.

Heritage. Krzysztof Birkenmajer belongs to a well known family of academic professors. Franciszek Michał Karliński (1830–1906), his great grandfather, was Professor of Astronomy at the Jagiellonian University in Kraków and Director of its Astronomical Observatory. Prof. Ludwik Antoni Birkenmajer (1855–1929), his grandfather, taught theoretical physics at the same university and was the first physicist to carry out gravimetric studies in Poland. His studies on the life and scientific achievements of Nicolaus Copernicus earned him the very high esteem of his peers.

Józef Antoni Birkenmajer (1897–1939), K. Birkenmajer's father, an Assistant Professor in Humanities at the Jagiellonian University, spent two years (1937–1939) teaching Polish Language and Literature at the University of Wisconsin, Madison (USA). As an officer in the Polish army, he fought the invading German army for three weeks during the siege of Warsaw and fell in battle on 26 September 1939.

Aleksander Ludwik Birkenmajer (1890–1967), the elder brother of K. Birkenmajer's father, was a professor of the History of Sciences at the Jagiellonian University and director of its famous Jagiellonian Library. During the 2nd World War, on 6th November, 1939, he was arrested by the gestapo and imprisoned in the Sachsenhausen concentration camp, where he was brutally treated by the Germans.

Zygmunt Birkenmajer [Sigmund S. Birkenmayer] (1923–1984), K. Birkenmajer's elder brother, fought the Germans during the Warsaw Uprising (1944). After the 2nd World War, he studied English and Slavic languages at the University of Washington, Madison, where his father had previously worked. Upon receiving his Ph.D. degree, he taught at U.S. universities, finally becoming a Professor and Director of the Institute of Slavic Languages, University of Pennsylvania, State College.

Education and paramilitary actions. During the German occupation of Poland, K. Birkenmajer attended (1942–1945) secret secondary school courses in Warsaw, then in Cracow – after being expelled in 1944 by the Germans from his home in Warsaw. From 1942 to 1944, together with his Secret Scout Group, he participated in paramilitary actions against the German occupiers, thus helping the Polish Home Army (Armia Krajowa). After the end of the 2nd World War, he continued his education at the 4th Gymnasium and Lycée in Cracow, from which he graduated in 1947.

Higher Education. In Cracow, K. Birkenmajer studied geology and palaeontology at the Jagiellonian University, from where he graduated in 1950 with an M.Sc. He also studied engineering geology at the Academy of Mining and Metallurgy in Cracow, from where he graduated in 1954 with Engineer geologist degree.

He obtained his Ph.D. degree at the University of Warsaw in 1957, after the submission of a geological monograph on the Czorsztyn Succession in the Pieniny Klippen Belt, West Carpathians.

Employment. At the Department of Geology, Jagiellonian University (Cracow), K. Birkenmajer tutored students of geology, palaeontology, geography and biology as an Assistant/Lecturer (1949–1950), then Senior Assistant/Senior Lecturer (1951).

At the Department of Geology, Academy of Mining and Metallurgy (Cracow) he continued teaching geology as Senior Assistant/Senior Lecturer (1951–1954).

Upon moving to the newly created Geology Department (in Cracow) of the Polish Academy of Sciences, he carried out geological research, first as an Adjunct (1954–1959), then as a Docent (= Assistant Professor, 1959–1967), Associate Professor (1967–1973), and Full Professor (1973–1999).

He was employed abroad for short periods:

- as a Fellow at Norges Teknisk-Naturvitenskapelige Forskningsråd (Royal Norwegian Council for Scientific and Industrial Research), Oslo: 1969–1971; 1989–1999;
- as a leader of summer field parties to Spitsbergen, by the Norwegian Polar Institute: 1962, 1966, 1970, 1990. Staff member, 1990;
- as Visiting Professor at the Institute of Geology and Palaeontology, University of Copenhagen, 1975–1976;
- as a leader of summer field parties to East Greenland, by the Greenland Geological Survey, Copenhagen: 1971, 1976;
- as a member of the geological summer expedition to King George Island (South Shetland Islands, West Antarctica), by the Institute of Geological Sciences, University of São Paulo, Brazil: 1994.

Scientific distinctions

- Polish Academy of Sciences (Warsaw): corresponding member (1983–1991); full member since 1991;
- Polish Academy of Sciences and Arts (Cracow): full member since 1989;
- Romanian Academy of Sciences (Bucharest): honorary member since 1997;
- Geological Society of America: honorary fellow (1985);
- Geological Society of Poland: honorary fellow (1991);
- Geographical Society of Poland: honorary fellow (2014);
- Österreichische Geologische Gesellschaft: Korrespondierendes Mitglied (honorary fellow) (1991);
- New York Academy of Sciences: fellow;
- Explorers Club, New York: international member.

Membership of professional societies and scientific bodies

- Polish Society of the Nature: Fellow since 1948;
- Geological Society of Poland: Fellow since 1950; Secretary General 1951–1957, Honorary Fellow, since 1991;

- Norsk Geologisk Forening (Geological Society of Norway), livsvarig medlem (Fellow), since 1960;
- International Association of Sedimentologists: Member 1962–1982; Council Member 1963–1967;
- Geographical Society of Poland, Polish Polar Club: Founder-Member (1974), Council-Member (since 1974); Vice-President 1978–1981; Honorary Fellow 2013;
- Geological Society of America: Member 1975–1977; Fellow 1977–1983; Honorary Fellow since 1985;
- International Geological Correlation Programme (IGCP): expert, 1969–1971; member of WG 198 (1983–1988); IGCP Board Member: 1987–1992;
- Inter-Union Commission on Geodynamics, WG 9: Member-correspondent 1973–1980;
- IUGS Polarity Time-Scale Subcommittee: Member-correspondent 1975–1978;
- Multilateral Co-operation of Academies of Sciences of Socialist Countries, Problem-commission IX (geology): Member 1974–1989; Polish National Representative 1974–1988;
- KAPG, Subproject 1.1. (Geophysical and Geological Model of the Lithosphere of the Carpathian-Balkan region), Member 1981–1989;
- Scientific Committee on Antarctic Research (SCAR, ICSU):
 - Polish National Delegate, 1948–1999
 - WG Geology: Member, 1978–1999
 - Group of Specialists on Cenozoic Palaeoclimate and Palaeoecology of the Southern High Latitudes (GOSC), Member 1986–1999
 - Group of Specialists on Environment and Conservation (GOSEAC), Member 1988–1999
 - Council of Managers of the National Antarctic Programmes (COMNAP): Polish National Delegate 1988–1992
 - SCAR Scientific Secretary 1992–1996
- International Arctic Science Committee (IASC), Council Member, Polish National Delegate 1991–1999;
- Polish National Committee on Polar Research, Polish Academy of Sciences: V-Chairman 1981–1983; Chairman 1984–1999; Honorary Chairman since 1999;
- Committee on Geological Sciences, Polish Academy of Sciences: member since 1972, Council-Member 1981–1983;
- Polish National Committee on IGBP-Global Change, Polish Academy of Sciences: V-Chairman since 1989;
- Scientific Council of the National Park of the Pieniny Mountains (Carpathians, Poland): member since 1960, V-President 1967–1995;
- Geologische Vereinigung (Bonn): Member 1990–2013, Council-Member 1990–1995;

- Stratigrafisk Komite for Svalbard (Stratigraphic Committee for Svalbard), Oslo: Member since 1980;
- International Association of Structural/Tectonic Geologists: Member since 1990.

Membership of Editorial bodies (a selection)

- Editorial Board: Palaeogeography, Palaeoclimatology, Palaeoecology (Elsevier, Amsterdam): Member 1965;
- Editorial Board: Journal of Structural Geology (Pergamon Press): Member 1988;
- Editorial Board: Acta Geologica Hungarica (Budapest): Member 1992;
- Editorial Board: Journal of East European and Trans-Uralian Earth Sciences (Pergamon Press), 1992;
- Editorial Board: Bulletin of the Polish Academy of Sciences, Earth Sciences: Member, 1986–2003, editor of the Earth Sciences section 2000–2002;
- Editorial Board: Annales Societatis Geologorum Poloniae (Cracow), Member since 1989, Chairman 1989–1991;
- Editorial Board: Studia Geologica Polonica (Warsaw-Cracow): Scientific Secretary/Managing editor 1958–1987, Chief Editor since 1987.

KRZYSZTOF BIRKENMAJER'S MAJOR FIELDS OF SCIENTIFIC RESEARCH

Sedimentology. Sedimentology of clastic deposits, palaeocurrents and palaeogeography, basin analysis and evolution (a selection):

(1) ***Carpathian Mountains (Poland, Slovakia)***: Jurassic marine carbonates; Jurassic–Palaeogene flysch.

(2) ***Spitsbergen***: Late Proterozoic diamictites; Carboniferous–Palaeogene freshwater and shallow marine deposits.

(3) ***E Greenland***: marine and continental clastics, Devonian Triassic, Palaeogene; Upper Permian shallow-marine deposits.

Arctic, regional geology

(1) ***Spitsbergen***. Proterozoic through Tertiary geological mapping, lithostratigraphy of Middle-Late Proterozoic complexes (metasediments and metavolcanics). Tectonic deformations (Proterozoic, Caledonian, Alpine); Cambrian through Tertiary: geological mapping, litho- and biostratigraphy, tectonic deformations (Caledonian and Alpine). Plate tectonics, evolution of the North-Atlantic Basin.

(2) ***East Greenland***. Stratigraphy, tectonics, geological mapping (Devonian, Permian, Triassic, Jurassic), Palaeogene near-shore marine deposits and volcanic pile.

West Antarctica, regional geology

(1) ***South Shetland Islands***. Detailed geological mapping of King George Is-

land (Cretaceous–Miocene) sedimentary and volcanic successions, magmatic-arc subductional complex, stratigraphy and K-Ar dating, petrography and geochemistry, palaeoglacial and palaeobotanical record), Deception Island and Penguin Island (Quaternary volcanoes), opening history of the Bransfield Rift.

(2) *Antarctic Peninsula, Hope Bay*. Detailed geological mapping, stratigraphy and tectonics of the Trinity Peninsula Group (TPG: ?Permo-Triassic) and the plant-bearing Mt Flora Formation (Jurassic); Antarctic Peninsula Volcanic Group (magmatic-arc subductional complex, APVG: Upper Jurassic–Lower Cretaceous).

(3) *Antarctic Peninsula, Danco Coast to Paradise Harbour*. Detailed geological mapping, relation of the APVG (subductional complex) to the TPG, Andean intrusions (Jurassic–Cretaceous).

Carpathian Mountains, Eastern Alps, regional geology

(1) *Pieniny Klippen Belt, West Carpathians*. Stratigraphy, palaeogeography, tectonics; Triassic–Palaeogene evolution of the Klippen Basin; detailed geological mapping, 1:10,000 and 1:5,000 scales; new lithostratigraphic standards for Jurassic, Cretaceous and Tertiary of the Pieniny Klippen Belt and the Magura Nappe (Outer Carpathians); Miocene volcanism, K-Ar dating; plate-tectonic models, palaeomagnetism; tectonic rotation in the Pieniny Klippen and West Carpathian Fold Belt.

(2) *Eastern Limestone Alps (Austria)*. Geological mapping, 1:25,000 scale, of the area south of Vienna (Schwarzau im Gebirge) and south of Kirchdorf a.d. Krems, for the Geologische Bundesanstalt, Vienna.

Palaeomagnetism and K-Ar dating

(1) *West Carpathians*. Project leader of K-Ar and palaeomagnetic dating of the Miocene intrusive volcanics.

(2) *South and East Spitsbergen*. Project leader of K-Ar dating and palaeomagnetism of Lower Cretaceous dolerites.

(3) *Lower Silesia and Cracow area, Poland*. Project leader of K-Ar and palaeomagnetic dating of the Carboniferous, Permian and Tertiary volcanics.

(4) *King George Island, West Antarctica*. Project leader of K-Ar dating of volcanic succession, Cretaceous through Miocene.

Quaternary geology and Tertiary palaeoglacial record

(1) *South Spitsbergen*. Quaternary glacial and glaci-fluvial deposits, geological mapping, radiocarbon dating.

(2) *King George Island, West Antarctica*. Establishing of Paleocene–Miocene palaeoglacial/palaeoclimatic standard (discovery of palaeoglacial moraines and interglacial-type terrestrial deposits). Discovery of the oldest (Oligocene) continental-scale glaciation (the Polonez Glaciation).

Publications

More than 1000 publications, including over 500 original scientific papers, 26

syntheses and monographs; more than 150 popular-scientific publications (including 4 books) and over 390 short scientific notices, abstracts, reviews *et al.*, 34 published and 19 unpublished detailed geological maps (Spitsbergen; King George Island, West Antarctica; East Greenland Pieniny Klippen Belt and Tatra Mountains, West Carpathians); about 8 university handbooks.

PHD DEGREES SUPERVISED BY K. BIRKENMAJER

Zbigniew Radwański – Środowisko sedymentacyjne fliszu formacji sromowieckiej (górną kreda) w Pieninach [Sedimentary environment of the Sromowce Formation flysch deposits (Upper Cretaceous) of the Pieniny, Carpathians, Poland]. Research Centre of Geological Sciences, Polish Academy of Sciences, Warszawa. 1976 – year of degree granted.

Daniel Danilewski – Budowa geologiczna północno-wschodniej części Sierra de los Organos (Kuba) [Geological structure of NE Sierra de los Organos (Cuba)]. Research Centre of Geological Sciences, Polish Academy of Sciences, Warszawa. 1979 – year of degree granted.

Paweł Aleksandrowski – Analiza strukturalna płaszczowiny magurskiej w rejonie Babiej Góry [Structural analysis of the Magura Nappe, Babia Góra region, Polish West Carpathians]. Institute of Geological Sciences, Polish Academy of Sciences, Warszawa. 1984 – year of degree granted.

Edyta Jurewicz – Analiza strukturalna pienińskiego pasa skałkowego okolic Jaworek. [Structural analysis of the Pieniny Klippen Belt near Jaworki (West Carpathians, Poland)]. Institute of Geological Sciences, Polish Academy of Sciences, Warszawa. 1990 – year of degree granted.

Antoni Kostka – The age and microfauna of the Maruszyna Succession (Upper Cretaceous–Palaeogene), Pieniny Klippen Belt, Carpathians, Poland (Wiek i mikrofauna sukcesji maruszyńskiej pienińskiego pasa skałkowego, górna kreda – paleogen). Institute of Geological Sciences, Polish Academy of Sciences, 1991 – year of degree granted.

Jarosław Tyszka – Mid-Jurassic palaeoenvironment and benthic communities in the Pieniny Klippen Belt, Poland). Institute of Geological Sciences, Polish Academy of Sciences, Warszawa. 1995 – year of degree granted.

Daniel Widz – Stratygrafia radiolarytów jurajskich pienińskiego pasa skałkowego na podstawie radiolarii [Stratigraphy of Jurassic radiolarites of the Pieniny Klippen Belt, based on radiolarians]. Institute of Geological Sciences, Polish Academy of Sciences, Warszawa. 1995 – year of degree granted.

Przemysław Gedl – Biostratygrafia i paleośrodowisko paleogenu podhalańskiego w świetle badań palinologicznych [Biostratigraphy and palaeoenvironment of the Podhale Paleogene (West Carpathians) based on palinological investigations] Institute of Geological Sciences, Polish Academy of Sciences, Warszawa. 2000 – year of degree granted.

KRZYSZTOF BIRKENMAJER'S SCIENTIFIC POLAR EXPEDITIONS (as member and/or leader of)

1. Spitsbergen 1956: Arctic summer, 4 weeks. Participation in a party of 5 men sent by the Polish Academy of Sciences to Spitsbergen, in order to find a good place for construction of the Scientific Station for the Polish Third International Geophysical Year, IGY (1957-8) Polar Expeditions. Leader S. Siedlecki.

2. Spitsbergen 1957: Arctic summer, 3 months. Member of the Polish 3rd IGY Expedition (leader S. Siedlecki). Scientific Station construction at Isbjørnhamna, Hornsund, south Spitsbergen. Geological field studies, including geological mapping (1:50,000 scale) in Wedel Jarlsberg Land.

3. Spitsbergen, 1958: Arctic summer, 3 months. Member of the Polish 3rd IGY Expedition (leader S. Siedlecki). Geological field studies, including geological mapping (1:50,000 scale) in Wedel Jarlsberg Land and Sørkapp Land.

4. Spitsbergen 1960: Arctic summer, 2 months. Member of the Polish International Geophysical Cooperation Expedition (leader S. Siedlecki). Geological party leader, field studies at inner Hornsund fjord, scientific excursion leader of the XXI International Geological Congress (Copenhagen) to Hornsund, Spitsbergen.

5. Spitsbergen 1962: Arctic summer, 2 months. Geological field party leader of the Norwegian Polar Institute's (Norsk Polarinstitut, Oslo) Geological Svalbard Expedition. Geological field studies, including geological mapping (1:50,000 scale), in eastern Torell Land and Sørkapp Land, Spitsbergen.

6. Spitsbergen 1966: Arctic summer, 2 months. Geological field party leader of the Norwegian Polar Institute's (Norsk Polarinstitut, Oslo) Geological Svalbard Expedition. Geological field studies, including geological mapping (1:50,000 scale), in northern and eastern Torell Land and Sørkapp Land, Spitsbergen.

7. Spitsbergen 1970: Arctic summer, 2 months. Geological field party leader of the Norwegian Polar Institute's (Norsk Polarinstitut, Oslo) Geological Svalbard Expedition. Geological field studies, including geological mapping (1:50,000 scale), in northern Sørkapp Land and Eastern Torell Land, Spitsbergen.

8. East Greenland 1971: Arctic summer, 2 months. Geological field party leader, the Greenland Geological Survey's (Grønlands geologiske undersøgelse, København) East Greenland Geological Expedition (leader N. Henriksen). Geological field studies, including geological mapping (1:100,000 scale) at Kap Brewster (Scoresby Sund), in Jameson Land and Scoresby Land.

9. Spitsbergen 1974: Arctic summer, 2 months. Geological leader (G. Biernat, co-leader) of the Institute of Palaeobiology, Polish Academy of Sciences (Warsaw): stratigraphic and palaeontological studies and sampling in late Palaeozoic rocks at inner Hornsund, and northern Sørkapp Land. 2 weeks were devoted to palaeomagnetic sampling (in cooperation with the Institute of Geophysics, Polish Academy of Sciences, Warsaw, and University of St. Louis, USA), in Palaeozoic and Mesozoic sedimentary rocks at Hornsund (K. Birkenmajer, leader).



Krzysztof Birkenmajer at East Greenland, 1976

10. East Greenland 1976: Arctic summer, 2 months. Geological field party leader, the Greenland Geological Survey's (Grønland geologiske undersøgelse, København) East Greenland Geological Expedition (B. Leith Nielsen and A. Steenfelt, leaders). Geological field studies, mainly Triassic sedimentology, between Kong Oskars Fjord and Clavering Ø.

11. East Spitsbergen 1977: Arctic summer, 2 months. Geological field party leader for a geophysical expedition of the Institute of Geophysics, Polish Academy

of Sciences (Warsaw) and the St. Louis University (USA). Geological investigations, palaeomagnetic sampling, seismological registration at Agardhbukta, Storfjorden.

12. West Antarctica: King George Island (South Shetland Islands), 1977/78: Antarctic summer, 5 months (including sea transport), 2nd Expedition to H. Arctowski Station (S. M. Zalewski, leader), Institute of Ecology, Polish Academy of Sciences. K. Birkenmajer: geological investigations, including geological mapping (1:50,000 scale), of Tertiary volcanic suites on King George Island. Participation in construction of the H. Arctowski Station.

13. West Antarctica, King George Island (South Shetland Islands), 1978/79: Antarctic summer, 6 months (including sea transport), 3rd Expedition to H. Arctowski Station (S. Rakusa-Suszczewski, leader), Institute of Ecology, Polish Academy of Sciences. K. Birkenmajer: geological field party leader: geological investigations, including geological mapping (1:50,000 scale), of Tertiary volcanic and glacial suites on King George Island.

14. West Antarctica, King George Island (South Shetland Islands), 1980/81: Antarctic summer, 7 months (including sea transport), 5th Expedition to H. Arctowski Station (K. Birkenmajer, leader), Institute of Ecology, Institute of Geological Sciences and Institute of Palaeobiology, Polish Academy of Sciences, and Wrocław University. Geological, palaeontological and palaeoglacial research, and geological mapping (1:50,000 and more detailed scales).

15. West Antarctica, Bransfield Strait and Northern Antarctic Peninsula, 1984/5: Antarctic summer, 2 months, 2nd Geodynamic Expedition, Institute of Geophysics, Polish Academy of Sciences, marine and terrestrial seismic sounding of the lithosphere (A. Guterch, leader), Bransfield Strait, Gerlache Strait. Geological field party leader K. Birkenmajer (Institute of Geological Sciences, Polish Academy of Sciences), geological studies, including geological mapping (1:50,000, and at more detailed scales) of Mesozoic to Tertiary volcanic arc (Antarctic Peninsula) and the Deception Island volcano (Quaternary).

16. West Antarctica, Northern Antarctic Peninsula, 1987/8: Antarctic summer, 2 months, 3rd Geodynamic Expedition, Institute of Geophysics, Polish Academy of Sciences, marine and terrestrial sounding of the lithosphere (A. Guterch, leader). Geological party leader K. Birkenmajer (Institute of Geological Sciences, Polish Academy of Sciences) geological studies, including geological mapping (1:50,000 and at more detailed scales) of Mesozoic to Tertiary volcanics (Antarctic Peninsula) and the Deception Island volcano (Quaternary).

17. Spitsbergen, 1990: Arctic summer, 1 month. Norsk Polarinstitutt's helicopter expedition (Y. Ohta & W. Dallmann, leaders). Geological comparative studies in southern Wedel Jarlsberg Land and northern Sørkapp Land (K. Birkenmajer).

18. West Antarctica, Northern Antarctic Peninsula, 1990/91: Antarctic summer, 2 months, 4th Geodynamic Expedition, Institute of Geophysics, Polish Academy of Sciences, marine and terrestrial sounding of the lithosphere (A. Gu-

terch, leader). Geological party leader K. Birkenmajer (Institute of Geological Sciences, Polish Academy of Sciences, and Institute of Palaeobiology, Polish Academy of Sciences): geological studies, including geological mapping (detailed scales) of Mesozoic volcanics and plant-bearing clastics at Hope Bay, northern tip of Antarctic Peninsula, and palaeoglacial sections at King George Bay, King George Island.

19. Spitsbergen, Hornsund, 1993: Arctic summer, 2 months. Geological expedition of the Institute of Geological Sciences, Polish Academy of Sciences (K. Birkenmajer, leader). Supplementary geological studies in Early Palaeozoic and Proterozoic metasedimentary successions of southern Wedel Jarlsberg Land.

20. West Antarctica, King George Island, 1994: Antarctic summer, 1 month. K. Birkenmajer, member/leader of the geological expedition organized by the University of São Paulo (Brazil). Investigations and sampling of palaeoglacial deposits at King George Island (Chopin Ridge, King George Bay, Melville Peninsula).

21. Spitsbergen, Hornsund, 1995: Arctic summer, 2 months. K. Birkenmajer, leader of the geological expedition in Wedel Jarlsberg Land, organized by the Institute of Geological Sciences, Polish Academy of Sciences. Final geological field studies in Early Palaeozoic and Proterozoic metasedimentary successions of southern Wedel Jarlsberg Land.

22. West Antarctica, King George Island, 2000/2001: Antarctic summer, 2 months. Member of the XXV Expedition of the Antarctic Biology Department, Polish Academy of Sciences to H. Arctowski Station (T. Janecki leader): supplementary geological mapping (1:50,000 scale) of the Admiralty Bay area.

23. Spitsbergen, Bellsund (Calypsobyen), 2002: Arctic summer, 6 weeks, geological expedition of the Institute of Geological Sciences, Polish Academy of Sciences (K. P. Krajewski, leader). Sedimentological and tectonics studies and mapping of the Late Proterozoic rocks at Midterhuken, Chamberlindalen, Recherchefjorden, and in the vicinity of Kapp Lyell (Late Proterozoic diamictites).

KRZYSZTOF BIRKENMAJER'S COLLECTIONS OF FOSSIL FAUNA AND FLORA (determined and published)

Pieniny Klippen Belt (West Carpathians)

Microfossils

Stefan W. Alexandrowicz – Upper Cretaceous foraminifera

Józef Dudziak – Jurassic, Cretaceous and Palaeogene calcareous nannoplankton

Stanisław Geroch – Cretaceous foraminifera

Antonina Jednorowska – Cretaceous–Palaeogene foraminifera

Jerzy Lefeld – large Urgonian foraminifera

Ewa Łuczowska – Jurassic, Miocene foraminifera

Olga Pazdro – Jurassic foraminifera

Body fossils

Ryszard Myczyński – Jurassic ammonites

Jerzy Znosko – Jurassic ammonites

Trace fossils

Zbigniew Radwański

Fossil flora

Maria Lesiak – Neogene carpological remains

Leon Stuchlik – Quaternary

Andrzej Środoń – Quaternary

Spitsbergen***Microfossils***

Elżbieta Turnau – Lower Carboniferous spores

Body fossils

Gertruda Biernat – Permian brachiopods

Stanisław Czarniecki – Carboniferous and Permian brachiopods

Jerzy Fedorowski – Permian corals

Anna Jerzmańska – Lower Triassic shark teeth

Zofia Kielan (-Jaworowska) – Lower Cambrian trilobites

Janusz Kopik – Jurassic ammonites

Alan Logan – Permian brachiopods

Stanisław Orłowski – Lower Cambrian trilobites

Halina Pugaczewska – Jurassic and Cretaceous bivalves and belemnites

Jerzy Trammer – Lower Triassic conodonts

Andrzej Wierzbowski – Jurassic ammonites

Ellis L. Yochelson – Lower Ordovician gastropod operculae

Fossil Flora

Ewa Zastawniak (-Birkenmajer)– Palaeogene leaf impressions

Greenland***Microfossils***

Przemysław Gedl – Oligocene dinocysts

Antonina Jednorowska – Oligocene foraminifera

Elżbieta Worobiec – Oligocene palynomorphs

Body fossils

Tove Birkelund (Copenhagen University) – Lowest Triassic ammonoids (not yet determined)

West Antarctica***Microfossils***

Ewa Łuczowska – Miocene foraminifera

Leon Stuchlik – Palaeogene and Quaternary palynomorphs

Marine body fossils

Gertruda Biernat
 Andrzej Gaździcki
 Ewa Popiel-Barczyk
 Halina Pugaczewska
 Ryszard Wrona

Fossil flora

Anna Maria Ociepa – Jurassic flora
 Ewa Zastawniak (-Birkenmajer) – Cretaceous and Palaeogene leaf flora

KRZYSZTOF BIRKENMAJER'S INVOLVEMENT IN INTERNATIONAL SCIENTIFIC ORGANIZATIONS (1988–2002)

Professor Birkenmajer's activity in international scientific cooperation included frequent travels abroad. Here we present his main activity since 1988.

Abbreviations:

ATCM – Antarctic Treaty Consultative Meeting
 GOSEAC – SCAR Group of Specialists on Environment and Conservation
 IASC – International Arctic Science Committee
 IGCP – International Geological Correlation Programme
 SCAR – Scientific Committee on Antarctic Research

1988

24–25.05. Symposium „Origin and evolution of Antarctic Biota“, London-Cambridge (UK) lecturer.
 18–22.07. VIIth International Gondwana Symposium, São Paulo, Brazil, lecturer.
 05–16.09. XX Session of SCAR, Hobart. Chairman of the Polish Committee on Polar Research.

1989

29.01–4.02. Advisory board, IGCP UNESCO, Paris (France).
 23–30.04. Symposium on Antarctic Geochronology, Munich (Germany), lecturer.
 09–19.07. 28th International Geological Congress, Washington DC (USA), lecturer and poster.
 30.07–03.09. Participation in geological expedition to Spitsbergen, organized by Norsk Polarinstittutt, Oslo (Norway).
 10–15.09. SCAR Cambridge (UK), as Polish national delegate.
 09–19.10. ATCM Paris (France), as Polish national delegate.
 01.11–31.12. Elaboration of geological observations from Spitsbergen, invited by Norsk Polarinstittutt, Oslo (Norway).

1990

05–09.02. 17th IGCP Board, Paris (France), as Polish national delegate.
 11–13.06. IGCP, Subregional Meeting for NE Europe, Otaniemi Espoo, Finland – as a member of the IGCP Board.
 15–27.07. SCAR, São Paulo, Brazil – as national Polish delegate.
 05.08–05.09. Participation in geological expedition to Spitsbergen, organized by Norsk Polarinstittutt, Oslo (Norway).

1991

14–21.04. Conference ATCM Bonn (Germany).
 13–20.05. Stratigraphic Committee for Svalbard, meeting, Oslo (Norway) – as a member of the committee.
 28–31.05. IIIrd Meeting of GOSEAC, SCAR. Woods Hole (USA) – as GOSEAC member.

- 09–15.09. 6th International Symposium of Antarctic Earth Sciences, Ranzan Machi (Japan) and Meeting of WG Geology SCAR, Tokyo (Japan) – lecturer and member.
 23–27.09. “Antarctic Science–Global Concerns” Conference, Bremen (Germany) – invited lecturer.
 07–18.10. XVIth ATCM Bonn (Germany) – as Chairman of the Committee of Polar Research, Polish Academy of Sciences, member of the Polish delegation, national delegate to SCAR.
 03–09.11. Vienna (Austria), invited by Österreichische Geologische Gesellschaft – receipt of the Honorary Membership of the Society.

1992

- 03–07.02. XXth Session of the IGCP Board (UNESCO-IUGS), Paris (France) – as elected member of the Board.
 25–30.04. Meeting of the IASC Council, Reykjavik (Iceland) – as permanent Polish national delegate to the IASC Council.
 08–19.06. XXII Scientific Meeting of SCAR, San Carlos de Bariloche (Argentina) – as national Polish delegate.
 24–28.06. Antarctic Science Symposium in connection with III. Congreso Geológico de España & VIII. Congreso Latinoamericano de Geología, Salamanca (Spain).
 10–20.11. XVII ATCM Session, Venice (Italy) – as head of the Polish national delegation.

1993

- 23–28.02. Annual meeting of the Geologische Vereinigung: “Aktive Kontinentalränder in Gegenwart und Vergangenheit”, Berlin (Germany) – as member of GV.
 04–07.04. Advisory Board to Acta Geologica Hungarica meeting and Scientific Session organized by the Hungarian Academy of Sciences and the Geological Survey of Hungary (Magyar Állami Földtani Intézet), Budapest (Hungary) – member of the AGH and invited lecturer.
 13–16.04. SCAR Executive Committee Meeting, Stockholm (Sweden) – as Scientific Secretary of SCAR.
 20–24.04. Vth Meeting of GOSEAC SCAR, Gorizia (Italy) – as GOSEAC member.
 02.07–03.09. Scientific expedition to Spitsbergen – as expedition’s leader.
 28.09–01.10. SCAR Workshop on European Collaboration in Polar Research, Granada (Spain).
 06–12.11. Intraplate Tectonics and Basin Dynamics, EUROROB Meeting, Csopak (Hungary) – Subproject leadership.
 15–22.11. 100th Anniversary (1983–1993) of the Danish Geological Society (Copenhagen), cooperative talks with Grønlands geologiske Undersøgelse and Geology Chair of the Copenhagen University personnel.
 13–19.12. 4th Working Meeting of the PONAM Project (European Science Foundation, Polar North Atlantic Margins), Cambridge (UK).

1994

- 09.01–23.02. XIIth Brazilian Antarctic Expedition. Brazilian Antarctic Project PROANTAR No. 1434, King George Island (South Shetland Islands) – leader of the field group.
 11–22.04. XVIIIth ATCM, Kyoto (Japan) – as Chairman of the Polish Committee on Polar Research, and Chair of the Polish delegation.
 02–06.05. IVth IASC Meeting, Ilulissat (Jacobshavn), West Greenland – as Chairman of the Polish Committee on Polar Research, IASC Council Member.
 09–14.05. SCAR GOSEAC Meeting, Santiago, Chile.
 27.08–01.09. XXIIIrd SCAR Meeting, Rome (Italy) – as Scientific Secretary of SCAR and Polish national delegate.
 12–16.09. European Conference on Grand Challenges in Ocean and Polar Sciences (organized by the European Committee on Ocean and Polar Sciences – ECOPS), Bremen (Germany) – as Chairman of the Polish Committee on Polar Research.
 15.09. ESF, EPF (European Science Foundation, European Polar Forum) Meeting, Bremen (Germany) – see above.
 12–17.10. ICSU Meeting, Rabat (Morocco) – as member of ICSU.
 30.11–05.12. ESF, EPF (European Science Foundation, European Polar Forum) Working Group.



XXIV SCAR Meeting, Cambridge (UK), 1996 – Working Group on Geology.
Professor Krzysztof Birkenmajer, first row, third from left.

Final meetings (30.11–02.12) of PONAM project, Randsvangen (Norway) and Oslo (05.12) – as member.

1995

24–26.04. Vth IASC Council Meeting, Rovaniemi (Finland) – as Chairman of the Polish Committee on Polar Research, IASC Council member.

08–19.05. XIXth ATCM, Seoul (S Korea) – as Deputy Chair of the Polish delegation, Chairman of the Polish Committee on Polar Research.

12–17.06. VIIth SCAR GOSEAC Meeting, Christchurch (New Zealand) – as a member of GOSEAC.

06.07–29.08. Polish Geological Expedition to Spitsbergen – as expedition leader.

06–16.09. VIIth International Symposium on Antarctic Earth Sciences, Siena (Italy) – lecture and 2 posters.

07–09.10. 34th Session of the ICSU General Committee, Chiang Mai (Thailand) – as Polish National Delegate.

1996

23–27.04. VIth IASC Council Meeting, Bremerhaven (Germany) – as member of the IASC Council and Chairman of the Polish Committee on Polar Research.

12–16.08. XXIV SCAR Meeting, Cambridge (UK) – as national delegate and Scientific Secretary of SCAR.

19–21.09. IUCN (International Union on Conservation of Nature). International Workshop on Cumulative Impacts in Antarctica: Minimisation and Management, Washington, D. C. (USA) – Chair of Working Group.

- 23.09. 35th Meeting of General Committee ICSU (International Council of Scientific Unions). Washington, D. C. (USA) – as member of the ICSU General Committee.
 24–27.09. 25th ICSU General Assembly – as member of the ICSU General Committee.
 27.09. ICSU General Committee Meeting – as member of the ICSU General Committee.

1997

- 04–08.05. 7th Annual Council Meeting, IASC, Sankt Petersburg (Russian Federation) – as Chairman of the Polish Committee on Polar Research and member of the IASC Council.
 01–06.06. Regional Scientific Meeting of IGCP Representatives of the East Alpine-Adriatic-Carpathian Region and neighbouring countries, Budapest (Hungary).
 07–11.07. IXth ATCM & SCAR GOSEAC, Bremerhaven (Germany) – as SCAR Scientific Secretary.
 07–19.09. NATO Advanced Study Institute, Conference: “Ice Physics in the Natural and Endangered Environment”, Acquafredda di Maratea (Italy) – as invited lecturer.
 04–09.11. Romanian Academy of Sciences, Centennial of the “Belgica” trip to/wintering in Antarctica Bucharest (Romania) – distinguished guest, awarded honorary membership of the Romanian Academy of Sciences, invited lecturer.

1998

- 23–25.04. 75th Meeting of the ICSU General Committee and Extraordinary General Session of ICSU, Vienna (Austria) – as member of the Polish delegation.
 26–28.04. IASC Council Meeting, Fairbanks (Alaska, USA) – as IASC Council Member and Chairman of the Polish Committee on Polar Research.
 25.05–05.06. XXIInd ATCM, Tromsø (Norway) – as Chairman of the Polish Committee on Polar Research, and vice-chair of the Polish delegation.
 29.08–02.09. XVIth Congress, Carpatho-Balkan Geological Association, Vienna (Austria) – as member.
 08–23.10. Scientific exchange between Polish and Chinese Academies of Sciences, Chinese Republic – participation in field excursion, guest lectures at the Peking and Nanking Academies of Sciences.
 18–28.09. Xth SCAR GOSEAC Meeting, Bad Schauenburg (Basel, Switzerland) – as member of the GOSEAC.

1999

- 24–29.04. Annual IASC Council Meeting, Tromsø (Norway) – as Council Member.
 15.05–04.06. XXIII ATCM, Lima (Peru) – as vice-chair of the Polish Delegation and Honorary Chairman of the Polish Committee on Polar Research.

2000

- 01–04.08. Arctic Science Summit Week, IASC; IASC Council Meeting; Forum of Arctic Research Operators (FARO); Cambridge (UK) – as IASC Council member.
 08–21.09. Field work in Hungary, cooperation between the Polish and Hungarian Academies of Science.
 01–03.10. PANCARDI-2000 Project Meeting: Pannonian Basin-Carpathian and Dinaride Systems. Geological Meeting on Dynamics of ongoing Orogeny, Dubrovnik (Croatia) – reportage.

2001

- 22–29.04. IASC Council Meeting and Arctic Science Summit Week; Forum of Arctic Research Operators (FARO – as a substitute); European Polar Board (as an observer), Iqaluit (Baffin Island), Canadian Arctic.

2002

- 21–26.04. Annual IASC Council Meeting (as IASC Council Member), and Arctic Science Summit Week; Forum of Arctic Research Operators (FARO – as a substitute); European Polar Board (as an observer), Groningen (The Netherlands).

NEW ANIMAL AND PLANT FOSSILS NAMED IN HONOUR
OF K. BIRKENMAJER

1970. *Arcthoplites birkenmajeri* Nagy – Ammonite (Cephalopoda). Age: Albian (Early Cretaceous). Location: South Spitsbergen (Svalbard archipelago). Reference: Nagy, J., 1970. Ammonite faunas and stratigraphy of Lower Cretaceous (Albian) rocks in southern Spitsbergen. *Norsk Polarinstitut, Skrifter*, 152: 1–58.

1982. *Allotropiochisma birkenmajeri* Fedorowski – Rugose corals. Age: Late Permian. Location: Hold with Hope, *Martinia* Limestone Member, Foldvik Creek Formation, East Greenland. Reference: Fedorowski, J., 1982. Some rugose corals from the Upper Permian of East Greenland. *Rapporter Grønlands geologiske Undersøgelse*, 108: 71–91.

1986. *Semiformiceras birkenmajeri* Kutek et Wierzbowski – Ammonite (Cephalopoda). Age: Rogoźnik Coquina Member, Middle Tithonian (Upper Jurassic). Location: Rogoża Klippe near Rogoźnik, Pieniny Klippen Belt (West Carpathians, Poland). Reference: Kutek, J. & Wierzbowski, A., 1986. A new account on the Upper Jurassic stratigraphy and ammonites of the Czorsztyn succession, Pieniny Klippen Belt, Poland. *Acta Geologica Polonica*, 36 (4): 289–316.

1987. *Xestoleberis birkenmajeri* Błaszyk – Ostracod. Age: Early Oligocene, Polonez Cove Formation. Location: King George Island, Polonez Cove. Reference: Błaszyk, J., 1987. Ostracods from the Oligocene Polonez Cove Formation of King George Island, West Antarctica. In: Gaździcki, A., *Palaeontological Results of the Polish Antarctic Expeditions – Part I. Palaeontologia Polonica*, 49: 63–81.

1987. *Phyllocrinus birkenmajeri* Głuchowski. Crinoid. Age: Bajocian (Middle Jurassic), Smolegowa Limestone Formation. Location: Kramnica Klippe, Czorsztyn Succession, Pieniny Klippen Belt (West Carpathians, Poland). Reference: Głuchowski, E., 1987. Jurassic and Early Cretaceous Articulate Crinoidea from the Pieniny Klippen Belt and the Tatra Mts., Poland. *Studia Geologica Polonica*, 94: 1–102.

1993. *Birkenmajeria* Widz et De Wever – Nasselaria (Radiolaria). Age: Oxfordian–Kimmeridgian. Location: Szeligowy Potok, Grajcarek Unit, Pieniny Klippen Belt (West Carpathians, Poland). Reference: Widz, D. & De Wever, P., 1993. Nouveaux Nasselaires (Radiolaria) des radiolarites jurassiques de la coupe de Szeligowy Potok (zones de Klippes de Pieniny, Carpathes Occidentales, Pologne). *Revue de Micropaléontologie*, 36 (1): 77–91.

1994. *Magnoliidaephyllum birkenmajeri* Zastawniak – Fossil leaf impression (Magnoliidae). Age: Late Cretaceous. Location: Zamek Hill, Admiralty Bay, King George Island (South Shetland Islands), West Antarctica. Reference: Zastawniak, E., 1994. Upper Cretaceous leaf flora from the Błaszyk Moraine (Zamek Formation), King George Island, South Shetland Islands, West Antarctica. *Acta Palaeobotanica*, 34 (2): 119–163.

2007. *Schizolepidella birkenmajeri* Ociepa. – Liverworts (Hepatophyta). Age: Late Jurassic. Location: Mount Flora, Hope Bay, Antarctic Peninsula. Reference:

Ociepa, A. M., 2007. Jurassic liverworts from Mount Flora, Hope Bay, Antarctic Peninsula. *Polish Polar Research*, 28 (1): 31–36.

2009. *Ascopora birkenmajeri* Nakrem, Błażejowski et Gaździcki – Bryozoan. Age: Early Permian. Location: Treskelodden Formation (southern Spitsbergen) and Wordiekammen Formation (central Spitsbergen). Reference: Nakrem, H. A., Błażejowski, B. & Gaździcki, A., 2009. Lower Permian bryozoans from southern and central Spitsbergen, Svalbard. *Acta Palaeontologica Polonica*, 54 (4): 677–698.

2009. *Liangshanella birkenmajeri* Wrona – Bradoriide arthropod carapaces. Age: Early Cambrian limestone erratics (dropstones) from Early Miocene glaciomarine Cape Melville Formation. Location: Cape Melville, King George Island (South Shetland Island), West Antarctica. Reference: Wrona, R., 2009. Early Cambrian bradoriide and phosphatocopide arthropods from King George Island, West Antarctica. Biogeographic implications. *Polish Polar Research*, 30 (4): 347–37.

2015. *Birkenmajerites* Fedorowski and *Birkenmajerites primus* Fedorowski – Rugose corals. Age: Early Serpukhovian (Pendleian), Eumorphoceras E1 Biozone (Early Carboniferous). Location: Parczew IG-3 drill core, depth 1210.3 m, Limestone D, Lublin Basin, E Poland. Reference: Fedorowski, J., 2015. Serpukhovian (Early Carboniferous) Rugosa (Anthozoa) from the Lublin Basin, eastern Poland. *Annales Societatis Geologorum Poloniae*, 85 (1): 221–270.

MEMOIRS

- Bajer, M., 1999. Rody uczone: Birkenmajerowie. *Forum Akademickie* 9: 1–4. [In Polish].
- Gradziński, R., 1997. Profesor Krzysztof Birkenmajer członkiem Akademii Rumuńskiej. *Przegląd Geologiczny* 45 (6): 640. [In Polish].
- Hampel, J., Kiryk F. & Pietrzkiwicz, I. (eds), 2007. Krzysztof Ludwik Birkenmajer. In: *Leksykon Profesorów Akademii Pedagogicznej im. Komisji Edukacji Narodowej 1946–2006. Wydawnictwo Naukowe Akademii Pedagogicznej, Kraków*: 36–37. [In Polish].
- Kolondra, L., 2014. Krzysztof Birkenmajer, geolog – polarnik. *Komitet Badań Polarnych przy Polskiej Akademii Nauk oraz Centrum Studiów Polarnych – Krajowego Naukowego Ośrodka Wiodącego, Sosnowiec*, pp. 121. [In Polish].
- Krajewski K. P., 2006. Profesor Krzysztof Ludwik Birkenmajer w 75-lecie urodzin. *Biuletyn Polarny*, 12–13: 7–11. [In Polish].
- Kuczyński, M., 1998. *Wielcy zdobywcy*. ABC Future, Warszawa, pp. 293. [In Polish].
- Rusu, D. N., 2003. Birkenmajer, Krzysztof. In: *Membrii Academiei Române: 1866–2003*. Editura Academiei Române, București: 113–114.
- Zastawniak, E., 2009. 80. Rocznica urodzin profesora Krzysztofa Birkenmajera, wybitnego geologa i badacza regionów polarnych, szczególnie zasłużonego dla Krakowskiej Szkoły Paleobotanicznej (80th anniversary of the birth of Professor Krzysztof Birkenmajer, eminent Polish geologist and Polar Explorer, particularly meritorious for the Cracow Palaeobotanical School). *Wiadomości Botaniczne* 53 (3/4): 103–113. [In Polish].
- Zastawniak, E., 2009. 80. Rocznica urodzin Profesora dr. inż. Krzysztofa Birkenmajera – wybitnego geologa, badacza regionów polarnych (80th anniversary of birth of Professor Krzysztof Birkenmajer, an outstanding geologist and researcher of Polar regions). *Przegląd Geologiczny*, 57 (12): 1032–1036. [In Polish].
- Znosko, K., 2004. 75-lecie Profesora Krzysztofa Birkenmajera. *Studia Geologica Polonica*, 122: 7–12. [In Polish].