Maria Łańcucka-Środoniowa

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EIGHTIETH ANNIVERSARY OF PROFESSOR MARIA ŁAŃCUCKA-ŚRODONIOWA BIRTHDAY

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Maria Środoniowa, was born in Cracow on 9 June 1913, as a daughter of a bank official Stanisław Łańcucki and Karolina née Sadowska. Having finished a state secondary school, she entered the Jagiellonian University and studied botany and, as a subsidiary subject, geography at the Faculty of Philosophy. At the same time she attended A. Terlecki's School of Painting and Drawing in order to develop her great inborn artistic gift. On 21 Jan. 1938 she graduated from the Jagiellonian University on the basis of her thesis "Biometric studies on variability in the male flowers of beech in Poland" made under the direction of Prof. Władysław Szafer. After leaving the university, she was awarded an annual scholarship from the J. Piłsudski National Culture Foundation, which enabled her to carry on a scientific research in the field of plant systematics and geography. She had undertaken that work when she was still a university student.

In May 1939 Maria Środoniowa was employed at the Bureau of the State Council for Nature Protection as a holder of a scholarship from the Ministry of Religious Beliefs and Public Enlightenment. During the German occupation she continued working at the newly reorganized Office of Nature Protection attached to the Chief Department of Forests as an office worker and contributed to the saving of the collections and files from the occupants. After the war she worked at the Bureau of the Commissioner for Nature Protection, Ministry of Education, till 31 Dec. 1948 and next, in January 1949, was appointed Senior Assistant-Curator at the Department of Systematics and Geography of Plants in the Institute of Botany, Jagiellonian University, which post, starting from 1 Oct. 1953 onwards, she held in conjunction with a job at the Department (later Institute) of Botany, Polish Academy of Sciences in Cracow. In 1951 she submitted her thesis "Woolly mulletin (*Verbascum lanatum* Schrad.) in Poland" and received a doctor's degree. Employed formally as a scientific research worker, from 1 Oct. 1953 a lecturer, she had actually little time for her own research work, for she devoted most of it to the museum collections and the popularization of botanic and palaeobotanic topics with the help of drawings and paintings.

Having taken a doctor's degree, she changed her scientific interests and gave herself

– now exclusively – to the study of fossil fruit-seed floras. She undertook an investigation of the Miocene flora from Rypin, in which she distinguished many taxa new to the Tertiary of Poland. At the same time Maria Środoniowa wrote a paper on the megaspores of aquatic ferns from the genera *Azolla* and *Salvinia*. This paper was the first report on fossil remains of this kind in Poland and one of the first in Europe. Working full time at the Institute of Botany, Jagiellonian University, and part time at the Institute of Botany, Polish Academy of Sciences, she constantly assisted Prof. Szafer at his palaeobotanical studies, sorting out the rich materials from the Tertiary floras of Poland. On account of her great artistic faculty for drawing and excellent sense of observation she was and is now the illustrator of her own works as well as of many works by Prof. Szafer and her husband, Prof. Andrzej Środoń. Among other publications, she illustrated "The life of flowers" (W. Szafer 1939), "Birds and plants protected in Poland", included in the manual of botany (W. Szafer & B. Dyakowski), "Pleistocene floras from Tarzymiechy" (A. Środoń 1954), the first edition of "Plant cover of Poland" (ed. W. Szafer 1959) and partly the textbook "An outline of palaeobotany" (W. Szafer & M. Kostyniuk 1959). She also prepared a number of maps for printing, e.g. "Geobotanical division of Poland" (W. Szafer & B. Pawłowski), "Geographical ranges of trees as well as important shrubs and dwarf shrubs in Poland" (Atlas of Poland, W. Szafer 1954), "Geobotanical regions and ranges of woodland trees" (Atlas of Poland, W. Szafer & A. Środoń 1954), "Flora and vegetation" (Atlas of Poland, W. Szafer & B. Pawłowski 1959) and the map "Vegetation zones on the terrestrial globe relative to climate" (sci. ed. W. Szafer 1954) which is still used as a wall map at schools now. Towards the end of the fifties she took pains to work out and execute four maps in conformity with Prof. Szafer's conception. These maps showing the vegetation of particular periods, the Holocene (1959), Glacials (1960), Interglacials (1961) and Pliocene (1962) were designed for the Palaeogeographical Atlas of Poland.

Throughout that period, as Curator of the Palaeobotanical Museum, she gave many years of work to marshal and inventory the abundant palaeobotanical collections. Maria Środoniowa is the author of the conception for the exhibition part of the Museum, in which the main place was given to numerous sets of fossil plants in accordance with her conception and arranged by her. They form superbly designed and very instructive, short "characterizations" of nearly all important taxa of the fossil floras of Poland. These sets have served the teaching of successive classes of students in biology and geology for nearly 40 years.

Maria Środoniowa museum activities were not limited to the Palaeobotanical Museum. In the sixties, under the schema of cooperation with the Salt Mine Museum at Wieliczka, Maria Środoniowa worked out an exposition script for the Palaeobotanical Division and prepared numerous sets of the Miocene flora from the salt bed. In the seventies, after the reorganization of the Museum, she wrote a new exposition script, including fossil plant remains found in the Miocene of the Wieliczka region. In 1985 she designed the Palaeobotanical Division of the Museum of the Pieniny National Part at Krościenko showing the vegetation of the Pieniny Mts. in the Tertiary and at the decline of the last glaciation.

When in 1961 workers were prohibited from holding posts in several institutions at the same time, Maria Środoniowa confined herself to the post of lecturer at the Institute of Botany, Polish Academy of Sciences, being still active as collection curator and carrying on palaeobotanical investigations. In 1963 a recapitulation of the present knowledge of the fossil floras of the Miocene in southern Poland appeared in print. In it the author gathered all, very fragmentary and dispersed data on both the localities and fossil plant taxa with enormous accuracy and conscientiousness and characterized the vegetational history of that area. At that time Maria Środoniowa undertook an inquiry into the Badenian flora of Gdów Bay, in which she also gave attention to very fine plant remains, generally left out of the studies of this type. The study material obtained from geological drillings was exceptionally difficult to study because of the bad state of preservation of the remains; less than a half of the forms distinguished were identifiable to species. This notwithstanding, the author distinguished as many as 92 forms of this flora, including a number of forms new to the Tertiary of Poland. The work on the flora of Gdów Bay, illustrated excellently and with great care by the author, appeared in 1966 and made the basis for the decision of the Council of the Faculty of Biology and Earth Sciences of the Jagiellonian University of 4 March 1966 to confer a docent's degree in natural sciences, with palaeobotany as her special subject, on Dr Środoniowa.

The next years brought new, interesting and significant studies in the field of palaeobotany of the Tertiary; and so she was the first to describe the seeds of *Hemiptelea* (Ulmaceae), *Weigela* (Caprifoliaceae), *Hydrangea* (Saxifragaceae), *Schefflera* (Araliaceae) and the fruits and seeds of such herbaceous plants as *Gratiola* (Scrophulariaceae), *Campanula* (Campanulaceae) and *Acorellus* (Cyperaceae). At the same time Maria Środoniowa determined and revised numberless specimens that she was asked to determine or that came in great numbers to the Museum as gifts, were brought by colleagues of the Department of Palaeobotany or collected by herself at different sites of Tertiary floras in Europe. Since that time they have been stored, as identified taxa of fossil plants in the Museum of the Department of Palaeobotany. They were obtained, among others, from the following sites: Adamów, Czorsztyn, Gdańsk (amber flora), Gdynia-Orłowo, Gozdnica, Krościenko, Lipnica Mała, Lubsko, Maruszyna, Mizerna, Mogilno, Ruszów, Rydów, Rypin, Rytwiany, Stare Gliwice and Tuplice. She investigated in detail several sites in the Nowy Targ-Orawa Basin (Chyżne, deep drillins at Czarny Dunajec and Domański Wierch, Koniówka-Podczerwone and Lipnica Wielka); her manuscripts, containing the results, are housed at the Archive of the Department of Palaeobotany.

A new monographic work on the fossil flora of the freshwater Miocene of the Nowy Sącz Basin appeared in 1979. The material, coming in part from drillings, was very difficult to analyse. Nevertheless, Maria Środoniowa distinguished as many as 111 taxa in it, including 38 taxa new to the Tertiary of Poland and 14 new species. Such copious materials permitted an all-round palaeofloristic characterization of the region under study. The suggestion of Badenian age of the flora, palinologically determined previously to be Carpathian, found a confirmation in the latest geological researches. A preliminary report on Maria Środoniowa's exceedingly interesting discovery appeared in 1980. For the first and so far sole time she found macrofossils of the so-called dwarf

mistletoe (*Arceuthobium*). However small were the fragments of stems, flowers and fruits, hardly 1 mm in size, they attracted her attention, whereas her exquisite sense of observation and knowledge of plant structure allowed the author to trace and illustrate all the developmental stages of this parasitic plant. Maria Środoniowa was the first to determine and present the composition of the fruit-seed flora of the Sośnica site, including the leaf flora famous for the last nearly 140 years.

On 3 February 1983 the scientific title of associate professor was bestowed on Dr Środoniowa on the strength of the State Council's resolution. Although formally pensioned off on 31 December 1983, she still carried on her research work. In 1984 she published the results of her study on the Upper Pliocene flora from Kłodzko with the remains of plants of wetlands and open water reservoirs. This floristic picture was supplemented with the materials obtained later from the same site; they have been preliminarily determined and will be prepared for publication. At the same time Maria Środoniowa gathered and published the results of earlier studies on the Miocene flora of the salt bed at Wieliczka, consisting not only of the materials already published at that time but also the notes taken down by the investigator of that flora, prof. Jan Zabłocki, while he head been preparing his lectures. In connection with the transfer of J. Zabłocki's collection from Toruń to the Salt Mine Museum at Wieliczka, Maria Środoniowa undertook a hard task of verifying hundreds of plant remains extracted from salt and studied by J. Zabłocki. The analytical stage of this work has already been completed and the results are being prepared for printing. This publication will be of great significance, for the flora discussed in it belongs to the most important floras of the European Tertiary.

An inquiery was simultaneously being conducted into the fossil flora of brown coal at Bełchatów. Maria Środoniowa checked and identified very abundant materials obtained from particular horizons of the mine. The results of another study of the Upper Miocene deposits from Gozdnica in Lower Silesia turned out extremely interesting. Very abundant plant remains in a very good state of preservation make this locality one of the most interesting sites of the Polish Tertiary and the remains of the so-called younger mastixioidean flora found there are an interest-arousing supplement to its floristic composition. Maria Środoniowa is one of the authors of the Atlas of the Index and Characteristic Fossils of the Tertiary in Poland, which is now being prepared for publication. It will be a much expected and needed illustration of the plant fossils important to the Tertiary.

Prof. Środoniowa virtually directs research work on macroscopic floras of the Tertiary carried out in the Władysław Szafer Institute of Botany, Polish Academy of Sciences in Cracow and in other scientific centres in Poland. Under her guidance two persons performed their theses for a doctor's degree and another thesis is just being prepared. In 1987–1993 she was a member of the Scientific Council of the Władysław Szafer Institute of Botany, Polish Academy of Sciences, at first as a secretary for several terms and next, since 1972 she has been a member of the Editorial Committee of the Acta Palaeobotanica. Member of the Polish Botanical Society since 1946, she performed duties of Secretary of its Palaeobotanical Section starting from 1972 onwards for above 10 years. In 1986 she was awarded a W. Szafer medal and she won a scientific prize

from the Second Department of Natural Sciences, Polish Academy of Sciences, four times: in 1955, 1958, 1966 and 1981.

Maria Środoniowa never grudges time and pains to anyone needing her help or advice. She is always well-disposed towards people and on friendly terms with the fellow-workers of the Department of Palaeobotany, in which she has been working uninterruptedly for 40 years – she has never taken advantage of her being wife to the head of the Department. Unusually solid and reliable in her scientific work, she is critical, conscientious and exact in her investigation and exceedingly patient, too. With all that she is an unassuming and tactful person. Contributing her marked share to our knowledge of the Tertiary vegetation, she has never laid stress on the high rank of her research work and achievements.

Extending our heartfelt wishes for good health and vigour to the senior palaeobotanist of the Tertiary in Poland, Prof. Maria Środoniowa, on her eightieth birthday, we are banking on her staying with us for many more years and on her making further discoveries in the domain lying so near her heart and mind.

PUBLICATIONS OF PROFESSOR MARIA ŁAŃCUCKA-ŚRODONIOWA

1937. Przyczynek do rozmieszczenia szafranu spiskiego w Polsce (Contribution à la connaissance de la répartition de *Crocus scepusiensis* (Rehm. et Woł.)Borb. en Pologne). Ochrona Przyrody, 17: 222–229.

1946. Dziewanna wełnista *Verbascum lanatum* Schrad. w Polsce (Verbascum lanatum Schrad. en Pologne). Acta Soc. Bot. Pol., 17 (2): 195–217.

1948. Z Pustyni Błędowskiej. Orli Lot, 10.

1957. Mioceńska flora z Rypina na Pojezierzu Dobrzyńskim (summary: Miocene flora at Rypin in Dobrzyń Lake District). Inst. Geol., Pr. 15: 5–76.

1958. *Salvinia* and *Azolla* in the Miocene of Poland. Acta Biol. Cracov., ser. bot., 1: 15–23.

1963. Stan badań paleobotanicznych nad miocenem Polski południowej (summary: Palaeobotanical investigations on the Miocene of Southern Poland). Roczn. Pol. Tow. Geol., 33 (2): 129–158.

1963. Les flores du miocène de la Pologne méridionale. Association Gologique Karpato-Balcanique. VI-me Congrès 2–16 septembre 1963. Varsovie-Cracovie. Résums des communications: 94–96.

1963. Miotsenovaya flora yunoy Polshi. Karpato-Balkanskaya Geologiechskaya Assocyaciya. VI Kongress 2–16 sentyabrya 1963. Warshawa-Krakow. Resyume soobshcheniy: 74–76.

1964. Tertiary coprolites imitating fruits of the Araliaceae. Acta Soc. Bot. Pol., 33 (2): 469–473.

1965. Wstępne wyniki badań paleobotanicznych nad neogenem Domańskiego Wierchu i Orawy (summary: Preliminary results of palaeobotanical investigations of the fresh-water Neogene deposits of Domański Wierch and Orawa (West Carpathians). Roczn. Pol. Tow. Geol., 32 (3): 362–365, 409–410.

1966. Tortonian flora from the "Gdów Bay" in the south of Poland. Acta Palaeobot., 7 (1): 1–135.

1967. Two new genera: *Hemiptelea* Planch. and *Weigela* Thunb. in the younger Tertiary of Poland. Acta Palaeobot., 8 (3): 3–19.

1969. Bulwy podziemne *Equisetum maximum* Lam. z miocenu w Czernicy koło Rybnika na Górnym Śląsku (summary: Tubers of *Equisetum maximum* Thunb. from the Miocene at Czernica near Rybnik, Upper Silesia). Acta Palaeobot., 10 (2): 11–19.

1971. The review: E. Knobloch, Tertiäre Floren von Mähren. Wiad. Bot., 15 (2): 164–165.

1975. *Hydrangea* L. (Saxifragaceae) and *Schefflera* Forst. (Araliaceae) in the Tertiary of Poland. Acta Palaeobot., 16 (2): 103–112.

1977. New herbs described from the Tertiary of Poland. Acta Palaeobot., 18 (1): 37–44.

1979. Macroscopic plant remains from the freshwater Miocene of the Nowy Sącz Basin, West Carpathians, Poland. Acta Palaeobot., 20 (1): 3–117.

1980. Macroscopic remains of the dwarf mistletoe *Arceuthobium* Bieb. (Loranthaceae) in the Neogene of Poland. Preliminary report. Acta Palaeobot., 21 (1): 61–66.

1981. Macroscopic plant remains from the Miocene of the Stara Wieś near Wilamowice (Southern Poland). Acta Palaeobot., 21 (2): 115–126.

1981. A preliminary report on a new study of the Neogene flora from Sośnica near Wrocław in Lower Silesia, West Poland (leaf and fruit-seed floras) (with H. Walther and E. Zastawniak). Acta Palaeobot., 21 (2): 101–114.

1983. Macroscopic plant remains from the Tertiary of Poland (with E. Zastawniak and J. Guzik). Acta Palaeobot., 23 (1): 21–76.

1984. Stanowisko utworów plioceńskich w Kotlinie Kłodzkiej (summary: The site of Pliocene deposits in the Kłodzko Basin, Central Sudetes). (with A. Jahn and A. Sadowska). Geol. Sudet., 18 (2): 7–43.

1984. The results obtained hitherto in studies on the Miocene macroflora from the salt-mine at Wieliczka (S. Poland). Acta Palaeobot., 24 (1,2): 3–26.

1985. A catalogue of the types of fossil species and intraspecific taxa kept in the Museum of the Department of Palaeobotany, Institute of Botany, Polish Academy of Sciences, Kraków. Acta Palaeobot., 25 (1,2): 21–32.

1987. Bremówna Maria (1906–1967), paleobotaniczka. In: Felisiak, S. (ed.) Słownik Biologów Polskich: 87–88. PWN Warszawa.

1987. Lilpop Jerzy (1888–1945), paleobotanik. In: Felisiak, S. (ed.) Słownik Biologów Polskich: 327–328. PWN, Warszawa.

1987. Piech Kazimierz Antoni (1893–1944), botanik, cytolog. In: Felisiak, S. (ed.) Słownik Biologów Polskich: 421. PWN, Warszawa.

1987. Szafer Władysław (1886–1970), botanik, wielkiej miary uczony i społecznik (with H. Bukowiecki). In: Felisiak, S. (ed.)Słownik Biologów Polskich: 519–521. PWN, Warszawa.

1990. Wyniki dotychczasowych badań paleobotanicznych trzeciorzędowych węgli brunatnych złoża "Bełchatów" (summary: Results of the hitherto palaeobotanical investigations of the Tertiary brown coal "Bełchatów" (Central Poland). (with L. Stuchlik. A. Szynkiewicz and E. Zastawniak). Acta Palaeobot., 30 (1,2): 259–305.

1992. Macroscopic plant remains from the Gozdnica and Gozdnica-Stanisław localities. (with Z. Kvaček and E. Zastawniak). In: The Younger Tertiary deposits in the Gozdnica region (SW Poland) in the light of recent palaeobotanical research. Pol. Bot. Stud., 3: 17–46.

1993 A supplementary note to the Upper Miocene flora of Gozdnica (Lower Silesia, SW Poland) (with E. Zastawniak). Acta Palaeobot., 33 (2).

in press. Ogólna charakterystyka (with E. Zastawniak). In: Atlas Skamieniałości Przewodnich i Charakterystycznych. Kenozoik. Trzeciorzęd. Wyd. Geologiczne.

EXPERT'S OPINIONS AND UNPUBLISHED ELABORATIONS DEPOSITED IN THE ARCHIVES OF THE DEPARTMENT OF PALAEOBOTANY, WŁ. SZAFER INSTITUTE OF BOTANY, POLISH ACADEMY OF SCIENCES, CRACOW

1969. Analiza makroskopowa osadów plioceńskich z Czorsztyna – wykop pod zaporę.

1973. Analiza makroskopowa osadów neogeńskich z Maruszyny.

1975. Szczątki makroskopowe roślin z osadów holoceńskich w Sundar-Nager (Indie).

1977. Analiza makroskopowa holoceńskich osadów bursztynonośnych z Gdańska – Port Północny.

1980. Okazy flory mioceńskiej z Wieliczki.

1980. Flora neogeńska z miejscowości Chyżne na Orawie (szczątki karpologiczne).

1980. Flora neogeńska z Czarnego Dunajca w Kotlinie Nowotarsko-Orawskiej (szczątki karpologiczne).

1980. Flora plioceńska z Domańskiego Wierchu koło Czarnego Dunajca (szczątki karpologiczne).

1980. Szczątki makroskopowe roślin z osadów mioceńskich z miejscowości Gdynia-Orłowo.

1980. Uzupełnienie do flory mio-plioceńskiej z Gozdnicy na Dolnym Śląsku.

1980. Flora neogeńska z miejscowości Koniówka i Podczerwone koło Czarnego Dunajca, Kotlina Nowotarsko-Orawska (szczątki karpologiczne).

1980. Flora górnomioceńska z Lipnicy Wielkiej na Orawie (szczątki karpologiczne).

1980. Szczątki makroskopowe z osadów mioceńskich w miejscowości Mogilno (woj. bydgoskie).

1980. Uzupełnienie do flory mioceńskiej Rypina na Pojezierzu Dobrzyńskim.

1982. Szczątki roślin w osadach trzeciorzędowych Bełchatowa.