

Professor Adam Zając – a sketch on His scientific output on the 70th birthday

Bogdan Jackowiak* & Waldemar Żukowski

Department of Plant Taxonomy, Faculty of Biology, Adam Mickiewicz University, Umultowska 89, 61-614 Poznań, Poland, *e-mail: bogjack@amu.edu.pl

The jubilees of scientists are a good occasion to reflect on their achievements and contribution to the development of science. The editors of *Biodiversity: Research and Conservation* are truly dedicated to follow this tradition. It provides not only the possibility to evaluate progress in knowledge on plant biodiversity but also an opportunity to express our acknowledgment and gratitude to the prominent representatives of this field of research.

This time, we wish to emphasize the achievements of Professor Adam Zając – an outstanding taxonomist and plant geographer, who in November 2010 celebrates his 70th birthday. Adam Zając represents the ‘botanical school of Cracow’, established by such scientists as: Marian Raciborski, Bogumił Pawłowski and Władysław Szafer, and is a student and creative continuator of many concepts of Professor Jan Kornaś. As a matter of fact, he alludes to his Master very often, always with deep respect and recognition (among others, Zając 2000; Zając & Mytnik-Ejsmont 2010).

Surprisingly, there is no simple answer to a simple question: what Professor Zając is famous for and for what we respect and admire him. This results from the multitude and importance of his achievements and works, which permanently contributed to the world’s scientific literature, and his personality that attracts throngs of junior researchers to arrive to Cracow for consultations.

Taking into account an enormous and long-standing research activity of Professor Adam Zając, our intention is not to analyse his continuously increasing scientific output, neither in a systematic nor comprehensive way. In this short sketch, we wish only to highlight some areas of his research activity and achievements.

There is no doubt that “*Distribution Atlas of Vascular Plants in Poland*” (2001), edited by Adam Zając

and Maria Zając, has its firm place in science, particularly, in the world biogeography. This work is the result of over 25 years of studies conducted by several generations of Polish botanists. It combines both an effort of field mapping, carried out over this span of time, and verification of all available historic data. The editors, in a way characteristic to themselves, write about the beginnings of work on this publication in the introduction to the *Atlas*: “Unofficial talks on taking the initiative to publish the *Atlas* were ended on some winter day in 1974, by our master, Professor Jan Kornaś, with the words: «Adam, it is time to prepare the methodology of an atlas of plant distribution in Poland»”. Professor Adam Zając had been coping with this challenge for most of his scientific life. After the basic methodological principles had been set up (Zając 1978), he coordinated all botanical works and, simultaneously, struggled with quickly developing information techniques. In the final stage, he also conducted extremely laborious but necessary consultations, aimed at the highest reliability of data, both taxonomic and geographic. The *Atlas*, published by specially created for this purpose Laboratory of Computer Chorology at the Institute of Botany of the Jagiellonian University, has become one of fundamental botanical works of the world rank. As writes Professor Romulad Olaczek (2001): *Atlas* greatly contributes to the knowledge about plants of Europe. It fills a part of European space with information about its natural environment content, provides material for syntheses dealing with the development and evaluation of changes in European flora and for delimiting ranges of plants.

The publishing success of the *Atlas* was possible due to, among others, personal contacts of the main animator of this work with eminent European phytogeographers, which he maintained from the beginning of his



Fig. 1. Professor Adam Zajac (photograph by M. Zajac)

scientific career. As a young researcher, he served internships in the laboratories of Professor H. Meusel in Germany and Professor Jalas in Finland. Afterwards, he solved many organisational and methodological problems in cooperation with Professor H. Niklfeld from Austria and Professor P. Schönfelder from Germany. For many years, he has been a member of *Committee for Mapping the Flora of Europe* that manage works on a monumental publication – “*Atlas Florae Europaea. Distribution of vascular plants in Europe*”.

From the beginning of his scientific career, Prof. Adam Zajac set a high value on the field mapping of flora, with emphasis on various spatial scales. Since 1972, he has been a co-author of a monumental work, “*Atlas Florae Europaea*”, and played a key role in the publication of “*Distribution Atlas of Vascular Plants in Poland*”. Since the beginning of the 70th, he has been also working on “*Materials to the Atlas of Distribution of Vascular Plants in the Polish Carpathian Mts*”. The publication of this *Atlas* will be of great importance for the further development of plant geography. He is a co-author and co-editor of the atlas of plant distribution in the environs

of Cracow – “*Flora Cracoviensis Secunda (Atlas)*” (Zajac *et al.* 2006).

His excellent knowledge on the distribution of vascular plants resulted in the series of publications devoted to the directional elements of the flora of Poland (among others, Zajac M. & Zajac A. 2006, 2009a, 2011 – in print). They are of great importance for understanding the position of Poland on a phytogeographic map of Europe and, also, are the basis for determination of inner geobotanical borders in our country.

The subject of particular interest of Professor Zajac are geographic aspects of man-made changes in flora. A leading work in this field is undoubtedly his habilitation thesis: “*Pochodzenie archeofitów występujących w Polsce*” (english: *The origin of the archaeophytes occurring in Poland*) (Zajac 1979). This study has vastly enriched our knowledge on the man’s influence on the development of plant geographic ranges. The author continued numerous aspects of this issue in the series of articles (Zajac 1983, 1987a, 1987b, 1988; Zajac A. & Zajac M. 1996; Zajac M. & Zajac A. 1998; Zajac *et al.* 2009).

In the same current of research are publications regarding kenophytes in Poland (Zajac *et al.* 1998) and apophytes – native species occurring in segetal and ruderal plant communities (Zajac A. & Zajac M. 1991; Zajac M. & Zajac A. 1992, 2009b). The aforementioned works are universally used in publications dealing with the contemporary dynamics of the flora of Poland.

The jubilee, as a co-author of nine entries to “*Polish Red Book of Plants*” (Kaźmierczakowa & Zarzycki 2001), significantly contributed to the documentation and evaluation of resources of threatened and endangered species of plants.

Such substantial phytogeographic output of Professor Adam Zajac would not be possible without excellent knowledge of taxonomical problems. His most im-

portant publications in this area were published in a joint work “*Flora of Poland*” and concerned such genera as: *Cerastium*, *Polygonum*, *Reynoutria* and *Bilderdykia* (Zajac 1992a, 1992b, 1992c, 1992d). In addition, he is a co-author of two editions of “*Red List of Vascular Plants in Poland*” (Mirek *et al.* 1995 and 2002).

In conclusion of this short sketch it is worth emphasizing that Professor Adam Zajac, with an admirable determination, has been encouraging young researchers to become involved in the development of phytogeographic studies. Thanks to his inspiration and support this extremely important field of fundamental phytogeographic research in Poland has been developing dynamically and thoroughly.

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