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In memoriam Dr. Erzsébet Kol (1897–1980)

by Zs. P.-Komáromy, Budapest

The Hungarian botanists were saddened by the death of Professor Erzsébet Kol (C.Sc.). She was born 8 July 1897 at Kolozsvár. After leaving secondary school she was admitted to the "Ferenc József" University at the same town. Her studies were interrupted in consequence of the First World War so she graduated in Szeged in 1924 (The University had campuses at Kolozsvár—Buda—Szeged).

Her scientific work started in 1921 at the Institute of General Botany of the „Ferenc József" University at Szeged. In 1925 she received the degree of Doctor in Philosophy in the subjects of general botany, systematic botany and organical chemistry, summa cum laude. In 1932 she became Private Docent, in the branch for "the lower classes of flowerless plants and their hydrobiology" and in 1937 she became a permanent civil servant with the title of Assistant Professor at the Botanical Institute of Szeged University.

During this period of her life she worked in different scientific laboratories abroad: in 1930 in Genève, at the Institute of Prof. R. Chodat and in Freiburg at the Institute of Prof. F. Oltmans. During the same summer she worked in the Linnea Alpinetum at Burg St. Pierre (the alpine laboratory of Genève University). In 1931 she attended the algological courses of Prof. E. Neumann in Aneboda (Sweden) and Prof. F Oltmans in Helgoland (Germany). In 1933 she spent the year in the laboratory at Genève under Prof. R. Chodat, studying the changes in the morphology of various algae which were being cultivated under anaerobic conditions. During the same summer she had the opportunity of studying the snow algae of Mts. Wallis, Mt. Blanc and Jungfrau Joch. In November 1935 she won the "Crusade" international scholarship of the American Assotiation of University Women so during the next year she worked at Ann Arbor (Columbia University, Michigan, USA) under Prof. W.R. Taylor and after returning to Europe, she worked at the British Museum, London. In 1936 she received a grant from the Smithsonian Institutions (Washington) for kryobiological researches in Alaska.

From 1940 to 1948 she was Professor of Botany at „Ferenc József" University (subsequently Bolyai University) at Kolozsvár, where with Prof. I. Győrffy they strived to make the botanical institute prosper in very hard conditions.

In 1948 she came to Budapest and continued her scientific work in the Botanical Department of the Hungarian Natural History Museum. She gained the scientific degree Candidate of Biological Sciences (C. Sc.) in 1952. In 1969 she retired without interrupting her scientific work. During the last years of her life until her death on 15 November 1980, she devoted most of her scientific efforts to preparing a monograph on the Hungarian Desmids for hydrobiologists. The monograph was not completed but Dr. L. Felföldy finished and published it in 1981.

She held memberships in the Hungarian Botanical Society; the Hungarian Limnological Society and the International Phycological Society.

She gained different prizes and medals for her activities in scientific researches: In 1930 the "Bugát Pál" medal of the Hungarian Associations of Naturalists, in 1961 the

"Dr. Entz Géza" memorial leaf of Hungarian Limnological Society, in 1956 and in 1977 orders, awarded to her by the Board of Education.

The main fields of her scientific work were kryobiology and hydrobiology. She worked with algae of various waters: Soda lakes, hot springs and arthesian wells of the Great Hungarian Plain, and the largest lake in Hungary, Balaton. She carried out kryobiological research in different localities of the world. In Europe: various parts of Hungary, in the Carpathians (High Tatra, South and East Carpathians), Norway, Switzerland, in the Alps, Etna, Bulgaria, Greece, Albania, Swedish Lapland, Spitzbergen, Finland. In North America: Colorado, Yellowstone Park, Montana, Mt. Rainier, Rocky Mountains, Alaska (Mt. McKinley, Mts. Wrangell, Mt. Chuga, Columbia glacier, Juneau region), Columbia, Greenland. In South America: Patagonia. On the Southern hemisphere: New Zealand, Antarctic (Balleny Islands, Signy Island, Haswel Island, South Orkney Islands). She collected on most of the listed places but she received samples from members of various scientific expeditions, too (e.g. Antarctic, Greenland).

She had published over thirty algological papers by 1936 when she was offered the opportunity of going on a collecting trip to North America. During the subsequent years (1937–1944) she presented a series of hydrobiological publications on the snow algae of Alaska, the green snow of Yellowstone Park and about the cryovegetation of the northern and southern hemispheres. Beside these, she carried hydrobiological research on Lake Balaton. Between 1944 and 1948 she concentrated on the algal flora of Transylvania. After that she worked, continuously and simultaneously, on materials of snow-, water- and soil-samples originating from various regions of the world (the Alps, Mts. Bükk, Norway, Rocky Mountains, High Tatra, Antarctic, New Zealand, Greece etc.). The culmination of her life-work was her book entitled Kryobiologie (215 pp., with 68 figures and 16 tables), published in Stuttgart in 1968.

She was characterized by multi-directed and systematic collecting work which was coupled with punctual and conscientious scientific work. It is being certified by the "Algotheca" (deposited in the Bot. Dept. of the Hung. Nat. Hist. Museum, Budapest) which represents her collection since 1949 and contains about 6200 fixed samples, and a collection of microphotographs (a total of 678) which contains the members of cryovegetation of coloured snow of Alaska, Greenland and the Yellowstone Park. The unialgal culture collection, accomplished by her, must be also mentioned, which came through a lot of trial. This collection was established on influence of Prof. R. CHODAT, in Dept. Gen Bot. at Szeged University. In 1940 it contained about 100 different strains and it was a respected collection in that time. There is another living algal collection (crude samples) which contains samples collected by her from different pit-bogs, from Bakony Mountains and other places. The rich flowering plant collection, collected by her in Alaska, was identified by E. GOMBOCZ, and he described a new genus and two new species after her (*Acroschizocarpus kolianus* gen. n. et sp. n. and *Claytonia koliana* sp. n.).

111 scientific publications (among them two books), 60 new algal species described by her and collections in the Museum, document the life-work of an active and science-loving researcher.

LIST OF SCIENTIFIC PUBLICATIONS OF E. KOL

1925: Előmunkálatok a Nagy Magyar Alföld moszatflórájához. I. Szeged és környéke. (Vorarbeiten zur Kenntnis der Algenflora des Ungarischen Nagy Alföld I. Szeged und Umgebung.) – *Folia crypt.*, **1:** 65–68.

1926: Algák a Lomnici-csúcs tetejéről (2634 m). (Über die Algen auf dem Gipfel der Lomnitzer Spitze, 2634 m.) – *Folia crypt.*, **1:** 221–226.

1927: Adatok a tátrai Desmidiaceák kocsonya-kiválasztással történő helyváltoztatáshoz. (Über

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die Bewegung mit Schleimbildung einiger Desmidiaceen aus der Hohen Tatra.) – *Folia crypt.* **1:** 435–442.
1927: Kleine teratologische Notiz über einige Closterien Arten. – *Hedwigia*, **58:** 119–121.
1927: Fragmenta Algologica Hungariae I. „Ewige Regen" vallis Felkaënsis. — *Magy. bot. Lap.*, **25:** 261–266.
1927: Über ein neues Mitglied des Kryoplanktons der Hohen Tatra Ankistrodesmus tatrae Kol n. sp. – *Acta soc. bot. Pol.*, **4:** 166–168.
1927: Ankistrodesmus tatrae n. sp. – *Math. term. tud. ért.*, **44:** 23–25.
1928: Über die Kryovegetation der Hohen Tatra I. – *Folia crypt.*, **1**: 613–622.
1929: Wasserblüte der Sodateiche auf der Nagy Magyar Alföld (Grossen Ungarischen Tiefebene) I. – *Arch. Protistenk.*, **66:** 514–522.
1930: Előmunkálatok hazánk Desmidiaceái monográfiájához. I. A Balaton és környéke Desmidiaceái, 1. Lesenceistvándi láp őszi vegetációja. (Vorarbeiten zur monographie der Desmidiaceen Ungarns I. Die Desmidiaceen des Balatons und dessen Umgebung 1. Die Herbstvegetation des Moores von Lesenceistvánd.) – *Annls Inst. biol. Tihany*, 148–154.
1930: Előmunkálatok hazánk Desmidiaceái monográfiájához II. A Magas Tátra alján elterülő tőzegesek Desmidiaceái 1. Felső-Tátrafüredi láp nyári vegetációja. (Vorarbeiten zur Monographie der Desmidiaceen unseren Vaterlandes II. Die Torfmoore am Fusse der Hohen Tatra 1. Sommervegetation des Moores von Felső-Tátrafüred.) – *Folia crypt.*, **1:** 783–790.
1931: Sur un nouveau représentant de la Flore nivale de la Suisse. — *Bull. Soc. bot. Genève*, **23:** 1–7.

1931: Nouveaux documents se rapportant a la Kryovegetation de la Suisse. — *Bull. Soc. bot. Genève*, **23:** 1–8.
1931: Zur hydrobiologie eines Natronsees bei Szeged in Ungarn. — *Verh. int. Verein. theor. angew. Limnol.*, **5:** 103–157.
1931: Sárga vízvirágzás székes tavon. (Gelbe Wasserblüte auf einem Natronteiche.) — *Arb. ung. biol. ForschInst.*, **4:** 1–8.
1931: Előmunkálatok a Nagy Magyar Alföld moszatvegetációjához. II. (Vorarbeiten zur Kenntnis der Algenvegetation der Nagy Magyar Alföld II.) — *Acta Litt. Scient. R. Univ. hung. Francisco-Josephina, Acta biol.*, **2:** 46–62.
1932: Über die Algenvegetation der Hajdúszoboszlóer Therme. — *Arch. Protistenk.*, **76:** 309–324.
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1933: Abnorm entwickelte Micrasterias rotata Individuen aus der Hohen Tatra. — *Acta Litt. Scient. R. hung. Francisco-Josephina, Acta biol.*, **2:** 231–232.
1934: Színes hó. [Coloured snow] — Magyar Brehm, 18: 356–358. (in Hungarian)
1934: Kryobiologische Studien I. — *Verg. int. Verein. theor. angew. Limnol.* **6:** 275–282.
1934: Biologie de la Cryovégétation des Alpes valasainans et du Massif du Mont Blanc. — *Bull. Soc. bot. Genève*, **25:** 287–292.
1934: Sur la neige verte du Massif du Mont-Blanc. — *Bull. Soc. bot. Genève*, **25:** 269–276.
1934: Sur un nouvel organisme du Cryoplancton de la Suisse. Chodatella tetrallantoidea Kol nov. gen et sp. — *Bull. Soc. bot. Genève*, **25:** 277–282.
1934: Sur un nouveau répresentant de la végétation des glaciers. — *Bull. Soc. bot. Genéve*, **25:** 283–286.
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1935: Első hó és jég élettani vizsgálatok a Jungfrau-hágón. [The first snow and icebiological examinations on Jungfrau col.] — Magyar Női Szle. 42–46. (in Hungarian)
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1937: Élet az örök havon és jégen. [Life on the snow and ice.] — *Természettud. Közl.*, 1–8. (in Hungarian)
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1938: Bodenalgen des Balaton Sees. (A Balaton-meder talajalgái.) — *Arb. ung. biol. ForschInst.*, **10:** 261–270.
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1956: Sur la microvegetation de la neige des montagnes de la Bulgarie I. (Mont Pirin et Mont Rila). — *Izv. biol. Inst., Sof.* **5:** 377–386.
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