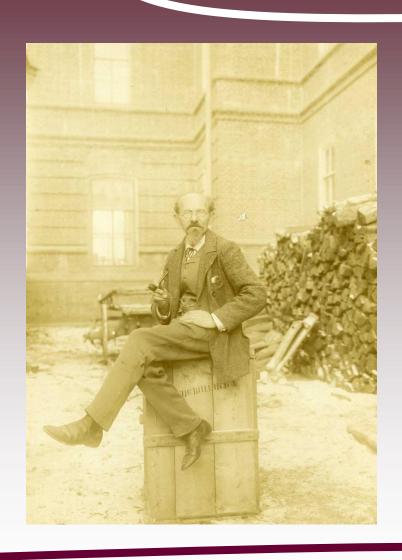
#### Thesaurus plantarum sybericarum

# Tracing the research of an outstanding Polish florist Ferdynand Karo (1845–1927)

#### **Iwona Arabas**

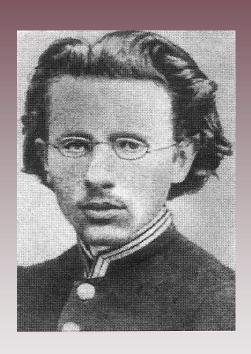
Insitute for the History of Science, PAS
Antonina Leśniewska Museum of Pharmacy, Historical Museum of Warsaw
Medical University of Warsaw

### **FERDYNAND KARO** 1845–1927



Ferdynand Karo was an outstanding Polish florist, and one of the naturalists to study the Siberian flora at the turn of the 20th century. His research on the Asian flora concurred with the widespread endeavours for scientific description of the world's flora begun in 19th century. Thus, his research ranks among the studies on biological diversity that followed the works of such explorers as the Forsters, Alexander von Humbolt, Joseph Dalton Hooker, and Charles Darwin.

#### Pharmacist and botanist



Ferdynand Karo was born in Brześć Litewski (now Brest, Belarus) on May 6, 1845 to an Italian immigrant Kajetan Caro and Anastazja née Wołcakiewicz. Yet at the age of twelve he collected herbarium specimens under supervision of his teacher Dr Julius Milde to whom, as Karo later acknowledged, he owed his passion for botany.

#### Gaining experience

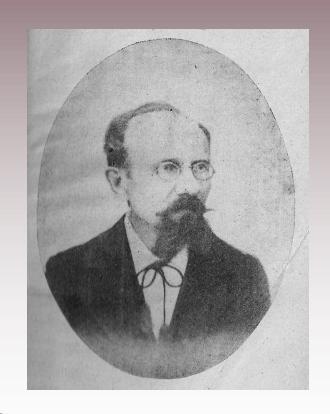


Karo did his pharmaceutical apprenticeship in the pharmacy of Ludwik Spiess in Warsaw.

He continued his apprenticeship in a pharmacy in Częstochowa until 1866 when, after passing a state pharmaceutical exam, he enrolled for pharmaceutical studies at the Warsaw Main School (the then name of the University of Warsaw). In 1867 yet as a student he published the first paper on the flora of the surroundings of Warsaw in the Viennese Oesterreichische Botanische Zeitschrift. He graduated with a diploma in pharmacy in 1872

#### Research in Siberia

In 1880 he moved to Lublin where he worked as a head of a military pharmacy. After seven years, in the spring of 1887, he accepted a transfer for an analogous post in Irkutsk, a Siberian town upon the Angara River. After working there for just two months he was transferred to Nerchinsk from where he returned to the home country in 1893.



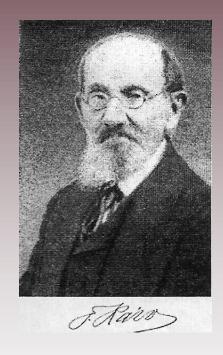
#### Research work

In 1897 he decided on returning to Siberia, this time working in Blagoveshchensk - a town on the border with China at the point where the Zeya River flows into the Amur. Three years later he moved up the river to Zeya-Pristan (former name of the city of Zeya), where he was managing pharmacies till 1902.

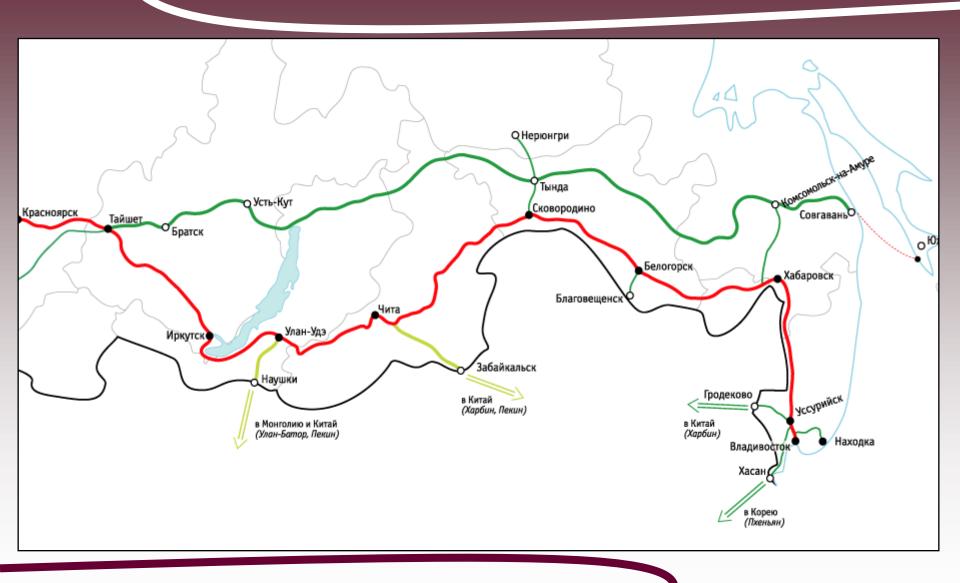


#### Research work

During his subsequent third Siberian expedition Karo, being based in Blagoveshchensk, explored the right bank of the Amur River, studying flora of the Manchuria region. His fourth and last Siberian visit lasted from 1910 till 1913.



#### Extent of research



Thesaurus plantarum sybericarum. Tracing the research of an outstanding Polish florist Ferdynand Karo (1845-1927)

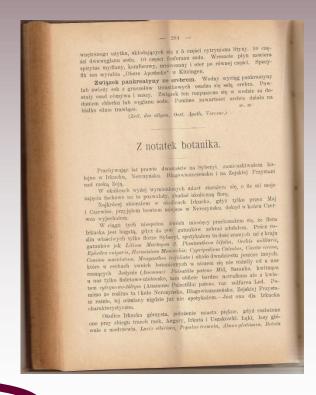
### Collaboration with a Czech botanist Joseph Freyn

Initially Karo was sending the specimens to L. Richter – a Hungarian botanist and herbarium-publisher. It was thanks to him that Karo got in contact with a Czech botanist Joseph Freyn who was identifying the specimens arriving in Budapest.



#### Journal reports

In 1902 Karo reported on his first two Siberian expeditions in a paper entitled From the botanist's notes published in the Polish Pharmaceutical News journal. Karo mentioned also the limitations he faced during his exploration including those posed by the proximity of the unsafe territories across the Chinese border.



#### Herbarium sheets prepared by Ferdynand Karo



Herbarium sheets prepared by Ferdynand Karo found their way to numerous European research institutions, and are kept to this date in herbaria in Warsaw, Cracow, Basel, Berlin, St. Louis (USA), Munich, Irkutsk, Chita, Kiev, Saint Petersburg, Genoa, Paris, Göttingen, Vienna, London (Kew), Leiden, Zurich, Lausanne and Florence.

## Herbarium sheets prepared by Ferdynand Karo







#### Plant species bearing Karo's name



The vast number of specimens collected by Karo included 28 plant species not known by botanists at the time, eight of which bear Karo's name:

- Astragalus Karoi Freyn,
- Carex Karoi Freyn,
- Chenopodium Karoi Aellen,
- Euphorbia Karoi Freyn,
- Linum Karoi Freyn,
- Pedicularis Karoi Freyn,
- Saussurea Karoi Freyn,
- Rosa Karoi Borbas.

# Thank you for your attention

