THE DIATOM GENERA *NITZSCHIA* HASSALL AND *HANTZSCHIA* GRUNOW FROM XINJIANG, CHINA

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The Xinjiang Uygur Autonomous Region (N34°25′-49°10′ / E 73°21′-96°21′) is located in northwestern China. The province covers one sixth of the territory of China. It borders eight countries including Russia, Kazakhstan, Kirghiziastan, Tajikistan, Pakistan, Mongolia, India and Afghanistan. Its landscape is a mixture of three mountains and two basins alternating with each other. High evaporation, little precipitation and an arid climate result in the upper soils accumulating salt and generating a saline-alkali soil. Despite this, there is a diversity of lentic and lotic habitats, with varying gradients of nutrient levels, pH, temperature and elevation. In addition, the region is in part affected by anthropogenic activity. Thus, the diatom flora in Xinjiang should be diverse at both the generic and specific levels. Up to now, only a few people have studied the diatoms of this region. With respect to the genera *Nitzschia* and *Hantzschia*, only Hustedt (1922) reported four new endemic species from Pamir.

Algae samples were collected from this region in July 2001 and July 2007. Altogether, 311 sites were sampled, spanning a wide variety of habitats at altitudes between 450-3600 m. Nearly 600 diatom species were identified with LM and SEM, among them, about 54 *Nitzschia* and 16 *Hantzschia* taxa. Detailed descriptions have been written for all the *Nitzschia* and *Hantzschia* taxa encountered to date. Most of them are adapted to alkaline-salt and high conductivity waters. Some species are commonly known: e.g. *N. vermicularis*, *N. sigmoidea*, *N. dissipata*, *N. obtusa*, *N. sigma*, *N. linearis*, and *N. palea.* Other species from Xinjiang Province are either very rare or exhibit interesting features as found in SEM. Included among these are *N.* cf. *eglei*, *N*. cf. *sublinearis*, *N.* cf. *elegantula*, and *N.* cf. *diversa* as well as other possible new, endemic species.

In this poster we present descriptions as well as light and scanning electron micrographs documenting the *Nitzschia* and *Hantzschia* species from Xinjiang Province, and discuss the taxonomic, systematic and biogeographic implications of our findings. We continue to study this interesting region to further assess other diatom species and the floristic diversity of the region.

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