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**HISTORY AND FUTURE OF SCIENTIFIC RESEARCH ON OZEGAHARA MIRE,
CENTRAL JAPAN**

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Ozegahara is the largest alpine mire (650 ha in area, 1,400 m a.s.l.) in Japan. The mire, together with upstream Lake Ozenuma and mountains in the catchment area, was designated as part of Nikko National Park for its scenic beauty in 1934. There had been a plan to build a reservoir covering the whole mire for hydroelectricity and water supply, causing a controversy over the protection of nature. The first comprehensive scientific research on Ozegahara Mire was conducted in 1950-1952 by a group of meteorologists, geologists, limnologists, geochemists and biologists, revealing its rich boreal flora and unique insect fauna. Soon after, the area was designated as a natural monument. The second scientific investigation was carried out in 1977-1979 to collect supplementary data to the first one, followed by the third in 1994-1996. The results indicated that the peat accumulation started at the bases of mountains about 9,000 years ago. About 6,000 to 2,700 years ago, backswamp areas of meandering rivers in the main basin had been covered with peat forming a landscape similar to the present: a mire of fen and bog complex with more than 1,500 pools. The mire and its catchment area are now protected as a Special Protection Zone of Oze National Park. The past research demonstrated several changes of the mire ecosystem, e.g., changes of pool vegetation, pool water dissipation, withering of riparian trees due to a river channel shift, increased nitrogen-fixing shrubs, and frequent disturbance by wild deer. Recent climate changes such as warmer summers and intensified rainfall events might have affected the mire ecosystem directly and indirectly. Further research on Ozegahara Mire is needed to detect the recent changes, to clarify the causes, to predict possible future changes, and to evaluate ecosystem services.

Keywords: *mire, conservation, peat, long-term change*