

First Group of MIBA Sites in China (Updated on May 30, 2005):

A. Summary table for MIBA sites in China:

Country	Sample site ID	Latitude	Longitude	Primary species samples	Months of year sampled	Soil	Stem	Leaf	Atm water vapor	Site description
CHINA	CHN.roof	39°54'N	116°23'E		Weekly				X	Roof of Stable Isotope Lab, Xiangshan, Beijing
CHINA	CHN.001	42°32'N	116°13'E	<i>Stipa krylovii</i>	May-Oct	X	X	X		Grassland in agro-pasture transit zone
CHINA	CHN.002	42°32'N	116°13'E	<i>Triticum aestivum</i>	May-Oct	X	X	X		Crop field in agro-pasture transit zone
CHINA	CHN.003	40°32'N	108°41'E	<i>Populus spp.</i>	May-Oct	X	X	X		Hybrid aspen plantation
CHINA	CHN.004	39°32'N	116°15'E	<i>Populus spp.</i>	Apr-Oct	X	X	X		Hybrid aspen plantation
CHINA	CHN.005	28°13'N	111°11'E	<i>Populus spp.</i>	Apr-Oct	X	X	X		Hybrid aspen plantation
CHINA	CHN.006	30°28' N	116°59' E	<i>Populus spp.</i>	Apr-Oct	X	X	X		Hybrid aspen plantation
CHINA	CHN.007	31°31'N	121°58'E	<i>Spartina alterniflora</i>	Mar-Nov	X	X	X		Artificial wetland with a C4 grass
CHINA	CHN.008	31°35'N	121°54'E	<i>Phragmites australis</i>	Mar	X	X	X		Coastal wetland with a C3 grass
CHINA	CHN.009	31°31'N	121°58'E	<i>Scirpus mariqueter</i>	Mar	X	X	X		Coastal wetland with a C3 grass
CHINA	CHN.010	TBD	TBD	TBD	All	X	X	X		Subtropical forest

B. Description for each site where isotopic samplings were initiated in 2005:

1. Institute of Botany, Chinese Academy of Sciences (IBCAS)

PI: Dr. Guanghui Lin, Research Professor of Stable Isotope Ecology
MIBA participants: Mr. Xin Li, Mr. Zhong Wang

Site 1. *Stipa krylovii* grassland in Duolun (Agro-pasture transit)

Location (longitude, latitude): 116°13'36''E, 42°32'03'' N.

Elevation: 1350m.

Climate (temperature, precipitation): The average annual temperature is 1.6°C. January is the coldest month with an average temperature of -18.3°C, while July is the hottest month with an average temperature of 18.3°C. The annual precipitation is 385.5mm, with 67% of which occurring from June to August.

Biome/Vegetation: dominated by *Stipa krylovii*, *Artemisia frigida*, etc.

Land use history: free grazing pasture and fenced since 2001.

Eddy tower: One eddy tower system of 5 m high was established in April 2005.



Site 2. Agricultural field in Duolun

Location: next to the grassland site in Duolun (Site 1).

Elevation: 1350m.

Climate: the same as Site 1.

Biome/Vegetation: *Triticum aestivum* plantation .

Land use history: reclaimed about 35 years.

Eddy tower: One eddy tower system of 5 m high was established in April 2005.



Site 3. *Populus* plantation

Location: 108°41'37'' E, 40°32'18''N.

Climate: The average annual temperature is 6.3°C. January is the coldest month with an average temperature of -12°C, while July is the hottest month with an average temperature of 24°C. The annual precipitation is about 300mm, with 60-70% of which occurring from July to September.

Biome/Vegetation: Hybrid poplar plantation (*Populus deltoids* x *P. nigra*) intercropped with liquorice (*Glycyrrhiza uralensis*), a legume Chinese herb plant.

Land use history: sandy dune before planting *Populus* forest in 2001.

Eddy tower: One eddy tower system of 20 m high was established in May 2005.



2. Beijing Forestry University (BFU)

PI: Dr. Zhiqiang Zhang, Professor of Hydrology
MIBA participant: Mr. Lingjun Cui

Site 4. An *aspen* plantation site in Daxing.

Location (longitude, latitude): 116°15'07''E, 39°31'50''N.

Elevation: 30m.

Climate (temperature, precipitation): Average annual air temperature is 11.5°C, average annual precipitation is 568.9mm.

Biome/Vegetation, and size: Vegetative type is poplar.

Topography (average slope, elevation): Average slope is 0.1%.

Land use history: The trees were planted in early spring of 2002 with the density of 825 stems per hectare.

Eddy tower: A 18m tall eddy tower was established in September 2004.

3. Research Institute of Forestry, Chinese Academy of Forestry (CAF)

PI: Dr. Xudong Zhang, Research Professor of Forest Ecology
MIBA participant: Ms. Yan Wang

Site 5. *Populus* plantation

Location (longitude, latitude): 28°13'N, 111°11' E.

Climate (temperature, precipitation): The climate is warm, damp and monsoon, the annual average temperature ranges between 16.5~17.0°C, the accumulative temperature

of $\geq 10^{\circ}\text{C}$ is 5254.1~5529.2 $^{\circ}\text{C}$. The annual rainfall reaches 1200.7~1414.6mm, frost-free period lasts for 263.7~276.6 days.

Biome/Vegetation, and size: The soil of the lake plain district is alluvium, which is fertile with thick soil-layer. On the site there are 133.33 thousand hectares of *Populus* plantations, and the age of the *Populus* trees is 5 years, with the canopy height of 15m.

Topography (average slope, elevation): Average slope is 0.1%.

Eddy tower: A 20m tall eddy tower was established in late 2004.

Site 6. *Populus* plantation

Location (longitude, latitude): Huaining Town, Anhui Province (30 $^{\circ}$ 28' N, 116 $^{\circ}$ 59' E.)

Climate (temperature, precipitation): The site pertains to the northern part of subtropics.

The annual average temperature is about 16.7 $^{\circ}\text{C}$, the accumulative temperature of $\geq 10^{\circ}\text{C}$ is 5366 $^{\circ}\text{C}$. The annual rainfall reaches 1460mm and focus on April~August.

Biome/Vegetation, and size: The site is located at, belonging to north bank of the Yangzi River. Soil PH is 6.5~7, which is alluvium from Yangzi River at the flood season. The main herbage species under *Populus* vegetation, which is 16 years old and has a canopy height of 26m, include *Phragmites communis*, *Miscanthus sacchariflorus*, *Leonurus japonicus*, *Oenanthe javanica*, *Cyperus rotundus* and *Hemisteptalyrata*.

Eddy tower: A 30m tall eddy tower was established in late 2004.

4. Institute of Biodiversity Science, Fudan University (FU)

PI: Dr. Bo Li, Professor of Wetland Ecology

MIBA participant(s): Mr. Yongjian Gu

Site 7. *Spartina alterniflora*

Location: 31 $^{\circ}$ 31'N, 121 $^{\circ}$ 58'E .

Elevation(average): 3m .

Climate: The annual mean temperature is 15.7 $^{\circ}\text{C}$, and the annual precipitation is 1145mm.

Biome/Vegetation: dominated by *Spartina alterniflora*.

Topography: Elevation of the plot is 3-4m and average slope 0.024%.

Land use history: It was formed not for a long time, and was protected for some birds.

Eddy tower: One eddy tower system of 6m high was established in August, 2004.

Site 8. *Phragmites australis*

Location: 31 $^{\circ}$ 35.079'N, 121 $^{\circ}$ 54.207'E .

Elevation(average): 3m .

Climate: The annual mean temperature is 15.7 , and the annual precipitation is 1145mm.

Biome/Vegetation: dominated by *Phragmites australis* .

Topography: Elevation of the plot is 3-4m and average slope 0.024%.

Land use history: It was formed not for a long time, and was protected for some birds.

Eddy tower: One eddy tower system of 6m high was established in August, 2004.



Site 9. *Scirpus mariqueter*

Location: 31°31.014'N, 121°58.300'E .

Elevation(average): 3m .

Climate: The annual mean temperature is 15.7 °C, and the annual precipitation is 1145mm.

Biome/Vegetation: dominated by *Scirpus mariqueter*.

Topography: Elevation of the plot is 3-4m and average slope 0.024%.

Land use history: It was formed not for a long time, and was protected for some birds.

Eddy tower: One eddy tower system of 6m high was established in August, 2004.



5. School of Life Sciences, Nanjing University (NU)

PI: Dr. Suqing An, Professor of Vegetation Ecology
MIBA participant: Mr. Jun Cui

Site 10. The research site, located in central east China, is the mixed lower reaches of Yangtze River, old Yellow River and Huihe River. It is almost broad and flat plain, besides little hills existing along the provincial borders. The Subtropical monsoon climate and warm temperate monsoon climate control the site all year. Mean annual temperature is 13 °C-16 °C, and mean annual precipitation is 800-1200 mm. An eddy tower system will be established in summer 2005.