

Everglades Publications by Binhe Gu

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Education:

- Ph.D. Oceanography, 1993, University of Alaska-Fairbanks

Expertise:

- Nutrient cycling
- Wetland ecology and restoration
- Food web dynamics
- Stable isotope ecology

Projects:

- Tree Island Elevation Responses to Hydrology

Publications:

Gu, B. and T. Dreschel. 2008. Phosphorus removal in constructed wetlands with different plant types under constant hydrologic loading. *Wetlands* 28:81-91.

Gu, B. 2008. Phosphorus removal efficiency in constructed wetlands dominated by submerged aquatic vegetation. *Journal of Plant Ecology* doi: 10.1093/jpe/rtm002

Gu, B. 2007. Stable isotope labeling technique in ecosystem ecology. Page 202-227. In: Wu, J (editor), *Lectures in Modern Ecology (III) Advances and Key Topics*. Higher Education Press. Beijing.

Sten, J., Y. Wang, B. Gu, and J. Newman. 2007. Distribution and turnover of carbon in natural and constructed wetlands in the Florida Everglades. *Applied Geochemistry* 22: 1936-1948.

Guo, Q., Z. Wu, M. Qian, and B. Gu. 2007. The roles of porous coral sands in initial enrichment of ammonia-oxidizing bacteria. *TheScientificWorldJOURNAL* 7:525–532.

An, S.Q., B. H. Gu, C. F. Zhou, Z. S. Wang, Z. F. Deng, Y. B. Zhi, H. L. Li, L. Chen, D. H. Yu and Y. H. Liu. 2007. *Spartina* invasion in China: implications for invasive species management and future research. *Weed Research* 47:183-191.

Yang Q, Z.H. Chen, J. G. Zhao and B. H. Gu. 2007. Contaminant removal of domestic wastewater by constructed wetlands: Effects of plant species. *Journal of Integrative Plant*

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Gu, B., A. Chapman and C. L. Schelske. 2006. Factors controlling seasonal variations in stable isotope composition of particulate organic matter in a soft water eutrophic lake. *Limnology and Oceanography* 51:2837-2848.

Gu, B., M. J. Chimney, J. Newman and M. Nungesser. 2006. A limnological survey of a constructed wetland in south Florida. *Ecological Engineering* 27: 345–360.

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Brenner, M., D. Hodell, J. Curtis, W. Kenney, B. Leyden, B. Gu, J. Newman. 2006. Mechanisms for organic matter and phosphorus burial in sediments of a shallow, subtropical, macrophyte-dominated lake. *Journal of Paleolimnology*. 35:129-148.

Qin, B., G. Zhu, L Zhang, L. Luo, G. Gao and B. Gu. 2006. Estimation of internal nutrient release in large shallow Lake Taihu, China. *Science in China Series D: Earth Sciences* 49: 38-50.

Gu, B. and M. V. Hoyer. 2006. Environmental conditions in natural aquatic systems dominated by submerged aquatic vegetation in Florida. *Lake and Reservoir Management*. 21:403-410.

Gu, B. 2006. Ecological effects of a submerged aquatic invasive plant (*Hydrilla verticillata* (L.F.) Royle) on phosphorus removal in Florida's shallow lakes and wetlands: implication for invasive species management. *Biological Invasions* 8: 1569–1578.

Dierberg, F., J. Juston, T. DeBusk, K. Pietro and B. Gu. 2005. Relationships between Hydraulic efficiency and phosphorus removal in a submerged aquatic vegetation dominated treatment wetland. *Ecological Engineering* 25:9-23.

Zhao, S., J. Fang, S. Miao, B. Gu, S. Tao, C. Peng and Z. Tang. 2004. The 7-decade degradation of a large freshwater lake in central Yangtze River, China. *Environmental Science and Technology* 39: 431-436.

DeBusk, T., Grace, F. Dierberg, Jackson, M. J. Chimney and B. Gu. 2004. An investigation of the lower limits of phosphorus removal in treatment wetlands: mesocosm testing of shallow, limerock-substrate wetland. *Ecological Engineering* 23: 1-14.

Gu, B., C. L. Schelske and D. H. Hodell. 2004. Extreme ^{13}C enrichment in a hypereutrophic lake: Implication to carbon cycling. *Limnology and Oceanography* 49: 1152-1159.

Havens, K.E., B. Gu, B. Fry and C. Kendall. 2003. Stable isotope food web analysis of a large

subtropical lake: alternative explanations for ^{15}N enrichment of pelagic vs littoral fisheries. *TheScientificWorldJOURNAL*. 3: 613-622.

Knight, R. L., B. Gu, R. A. Clarke, and J. M. Newman. 2003. Long-term phosphorus removal in Florida aquatic systems dominated by submerged aquatic vegetation. *Ecological Engineering* 20: 45-63.

Dierberg, F., T. DeBusk, J. Potts and B. Gu. 2002. Biological uptake vs. coprecipitation of soluble reactive phosphorus by 'P-enriched' and 'P-deficient' *Najas guadalupensis* in hard and soft waters. *Verhandlungen Internationale Vereinigung für theoretische und angewandte Limnologie* 28: 1865-1870.

Gu, B., T. Frazier, F. Chapman and D. M. Schell. 2001. Reduced feeding of Suwannee sturgeon during prolonged river residence. *Estuaries, Coastal and Shelf Science* 53: 275-280.

Gu, B., T. DeBusk, F. E. Dierberg, M. Chimney, K. Pietro and T. Aziz. 2001. Phosphorus Removal from Everglades Agricultural Area Runoff by Submerged Aquatic Vegetation/Limerock Treatment Technology: An Overview of Research. *Water Science and Technology* 44:101-108.

Gu, B., V. Alexander, and D. M. Schell. 1999. Seasonal and interannual variability of plankton carbon isotope ratios in a subarctic lake. *Freshwater Biology* 42:417-426.

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Gu, B., V. Alexander, and D. M. Schell. 1997. Stable isotopes as indicators of carbon flows and trophic structure of the benthic food web in a shallow eutrophic lake. *Archive für Hydrobiologie* 138:329-344.

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Fisheries and Aquatic Science 53:685-693.

Gu, B. and V. Alexander. 1996. Stable carbon isotope evidence for atmospheric CO₂ uptake by cyanobacterial surface scums. Applied and Environmental Microbiology 62:1803-1804.

Gu, B., D. M. Schell, and V. Alexander. 1994. Stable isotopic analysis of the plankton food web in a subarctic lake. Canadian Journal of Fisheries and Aquatic Science 51:1338-1344.

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BOOK CHAPTERS

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