Editorial note

Alho,CJR.[a] *and Pinder L.*[b]

[a]Programa de Pós-graduação em Meio Ambiente e Desenvolvimento Regional, Universidade Anhanguera – Uniderp, Campo Grande, MS, Brazil

[b]Norte Energia S/A, Brasília, DF, Brazil

This Special Volume of the Brazilian Journal of Biology contributes with technical and scientific papers, on ecological, biological and limnological studies, as the results of field work carried out at the mid and lower Xingu River region. These papers well illustrate the complex aspects of the regional aquatic ecosystems in the Amazon Basin. The results of this multidisciplinary research activity contribute to understand the natural systems under the integrating context of the biotic and abiotic relationships.

There has been a global concern over aquatic ecosystems, and the consequent need to apply conservation actions. The aquatic ecosystems of the Amazon region in general and the ones of the Xingu River in particular are included in these overall concerns. The document "*Living Planet Report – 2014 – species and spaces, people and places*" (WWF, 2015), produced by a team of international experts, emphasizes that human beings are the dominant force that modifies ecological systems. Edward Wilson stresses that "[...] man has become a geophysical force in the planet". In addition the aquatic biodiversity, mainly fish resources, contribute to the well-being of the local people, as pointed out by Millenium Ecosystem Assessment (2003, 2005a, b, c, d, e, f, g, h, i, j, k), *Ecosystem and Human Well-Being: synthesis*, *A framework for assessment*, *Current state and trends*, Vol. 1, *Scenarios*, Vol. 2, *Policy responses*, Vol. 3, *Multiscale assessments*, Vol. 4, *Our human planet: summary for decision-makers*; Synthesis report: *Ecosystems and Human Well-Being: Synthesis*, *Biodiversity synthesis*, *Diversification synthesis*, *Human health synthesis*, *Wetland and water synthesis*, *Opportunities and challenges for business and industry*; The Center for Resource Economics; World Resources Institute. Furthermore, the recent COP, IPCC (2014); to update UN's convention on climate change (IPCC) have stated that a large fraction of both terrestrial and freshwater species face increased extinction risk under projected climate change, especially as climate change interacts with other stressors, such as habitat modification, over-exploitation, pollution, and invasive species.

Scientific published research proves the importance of the Amazon biodiversity. The aquatic freshwater ecosystems of the Xingu River are vital to contribute to this recognized diversity of species, ecosystems and genetic variability. This biodiversity also represents a fundamental socioeconomic resource for the Amazon people who rely upon fish and other natural resources as source of food and income.

The Xingu River ecosystem is at present under environmental stress due to the construction of Belo Monte hydropower infrastructure plant. The production, preparation and organization of this volume sponsored by Norte Energia has the objective to establish a baseline of scientific information useful and valuable for further impact assessment and to understand the new ecological dynamics of environment under stress.

Guest Editors of this Special Volume

References

Intergovernmental Panel on Climate Change – IPCC, 2014. *Climate change 2014*. Available from: <www.ipcc.ch>. Access in: 26 Nov. 2015.

Millennium Ecosystem Assessment, 2003. *Ecosystems and human well-being: a framework for assessment*. Washington, DC: Island Press. Millennium Ecosystem Assessment Series.

Millennium Ecosystem Assessment, 2005a. *Ecosystems and human well-being: synthesis*. Washington: Island Press.

Millennium Ecosystem Assessment, 2005b. *Ecosystems and human well-being: current state and trends*. Washington, DC: Island Press. Millennium Ecosystem Assessment Series, vol. 1.

Millennium Ecosystem Assessment, 2005c. *Ecosystems and human well-being: scenarios*. Washington, DC: Island Press. Millennium Ecosystem Assessment Series, vol. 2.

Millennium Ecosystem Assessment, 2005d. *Ecosystems and human well-being: policy responses*. Washington, DC: Island Press. Millennium Ecosystem Assessment Series, vol. 3.

Millennium Ecosystem Assessment, 2005e. *Ecosystems and human well-being: multiscale assessments*. Washington, DC: Island Press. Millennium Ecosystem Assessment Series, vol. 4.

Millennium Ecosystem Assessment, 2005f. *Ecosystems and human well-being: our human planet*. Washington, DC: Island Press.

Millennium Ecosystem Assessment, 2005g. *Ecosystems and human well-being: biodiversity synthesis*. Washington, DC: Island Press.

Millennium Ecosystem Assessment, 2005h. *Ecosystems and human well-being: diversification synthesis*. Washington, DC: Island Press.

Millennium Ecosystem Assessment, 2005i. *Ecosystems and human well-being: human health synthesis*. Washington, DC: Island Press.

Millennium Ecosystem Assessment, 2005j. *Ecosystems and human well-being: wetland and water synthesis*. Washington, DC: Island Press.

Millennium Ecosystem Assessment, 2005k. *Ecosystems and human well-being: opportunities and challenges for business and industry*. Washington, DC: Island Press.

WORLD WIDE FUND FOR NATURE – WWF, 2015. *Living Planet Report – 2014 – species and spaces, people and places*. Gland: WWF. Available from: <http://wwf.panda.org/about_our_earth/all_publications/living_planet_report/>. Access in: 26 Nov. 2015.