



Working together towards a more efficient and strategical way to the ecosystem services conservation.

Prof. Dalva M. Silva Matos

E-mail: dmatos@ufscar.br

Lab. Ecology and Conservation

Depto of Hydrobiology – Federal University of São Carlos

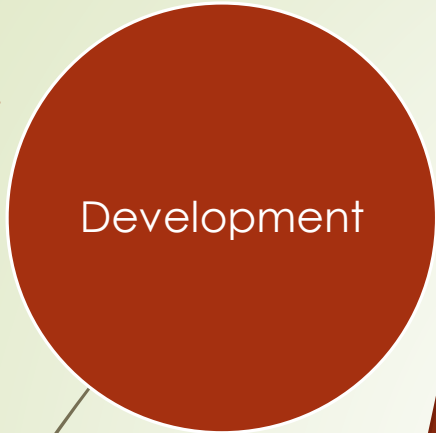
CV: <http://buscatextual.cnpq.br/buscatextual/visualizacv.do?id=K4782761A7&idiomaExibicao=2>

Alternative e-mail: dmsilvamatos@gmail.com



Similar challenges:

- 1- High population density;
- 2- High diversity ecosystems;
- 3- Rich and expanding economy;
- 4- High rate agricultural goods/ha;
- 5- High rate of environmental impacts;
- 6- Seeking environmental conservation, economic and social improvement



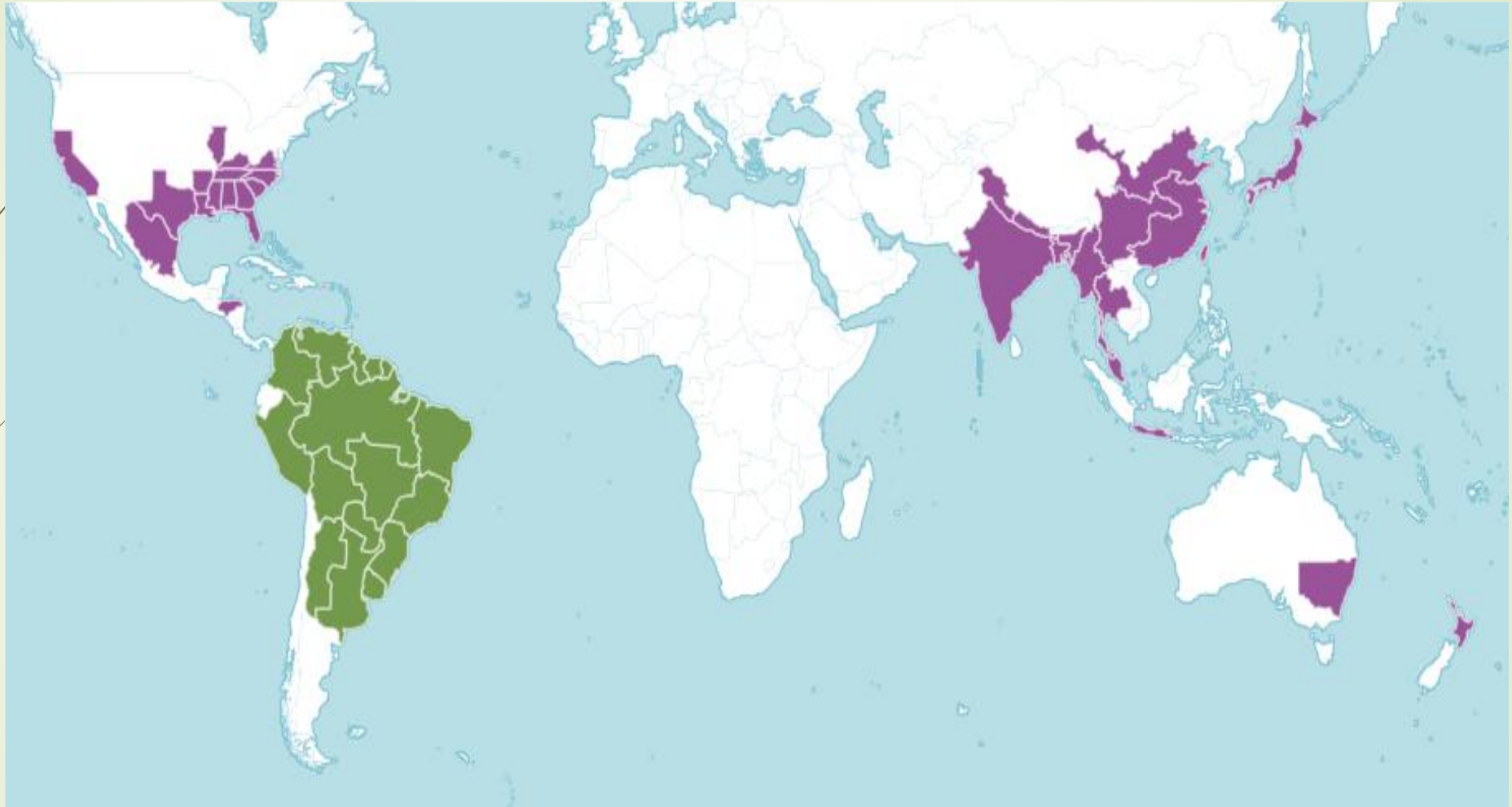
- ecosystem services?
- biodiversity;
 - clean air;
 - water;
 - carbon sequestration;
 - health;
 - agriculture;
 - food;
 - soil;





Human impacts?

Plant invasion → biodiversity conservation + ecosystems services sustainability



Native ■

Introduced ■

Alternanthera philoxeroides, native in Brazil

invasive in China



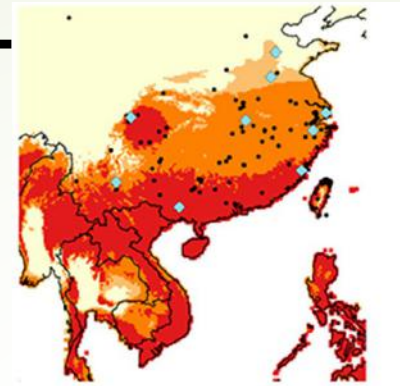
Plant invasion → biodiversity conservation + ecosystems services sustainability



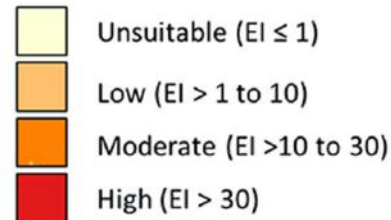
FIGURE 1 | *Alternanthera philoxeroides* invades diverse habitats in China and shows different asexual life cycles. (A) Monoculture in aquatic habitat in late summer; **(B)** Monoculture in terrestrial habitat in late summer; **(C)** New shoots grow from underwater stems in aquatic habitat in spring; **(D)** New shoots grow from underground storage roots in terrestrial habitat in spring.

The Relative Importance of Genetic Diversity and Phenotypic Plasticity in Determining Invasion Success of a Clonal Weed in the USA and China

Yupeng Geng^{1,2}, Rieks D. van Klinken³, Alejandro Sosa⁴, Bo Li², Jiakuan Chen^{2*} and Cheng-Yuan Xu^{5*}



Environmental Index



The Structural Adaptation of Aerial Parts of Invasive *Alternanthera philoxeroides* to Water Regime

October 2009 · Journal of Plant Biology 52(5):403-410

DOI: [10.1007/s12374-009-9051-9](https://doi.org/10.1007/s12374-009-9051-9)

Yong Wan Tao · Fang Chen · Kaiyuan Wan · [Show all 5 authors](#) · Jian-Qiang Li

The Invasion of *Alternanthera philoxeroides* Increased Soil Organic Carbon in a River and a Constructed Wetland With Different Mechanisms

Ruirui Yang¹, Ke Li¹, Jiaohui Fang¹, Quan Quan², Chao Zhang¹ and Jian Liu^{1*}

Response of Exotic Invasive Weed *Alternanthera philoxeroides* to Environmental Factors and Its Competition with Rice

YU Liu-qing¹, Yoshiharu FUJII², ZHOU Yong-jun¹, ZHANG Jian-ping¹, LU Yong-liang¹, XUAN Song-nan¹

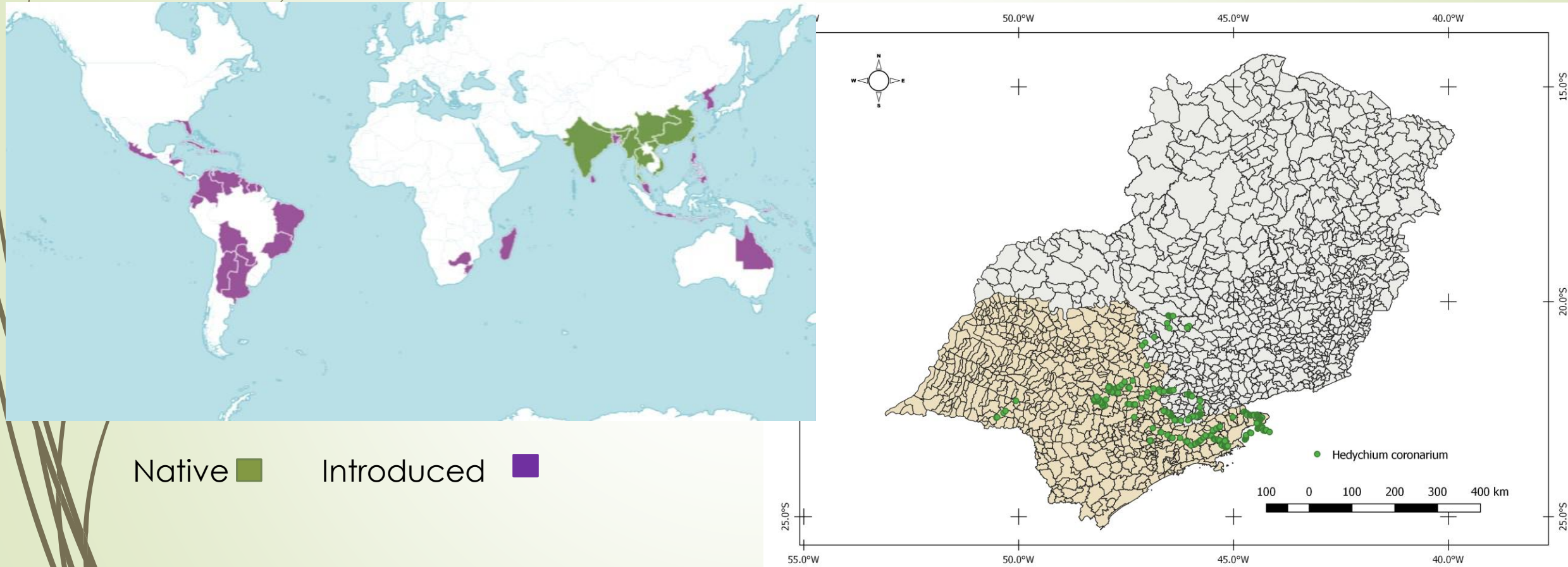
Increasing Seriousness of Plant Invasions in Croplands of Eastern China in Relation to Changing Farming Practices: A Case Study

Guo-Qi Chen, Yun-He He, Sheng Qiang



Plant invasion → biodiversity conservation + ecosystems services sustainability

Hedychium coronarium, native in China, invasive in São Paulo state





Plant invasion → biodiversity conservation + ecosystems services sustainability

Native in China, invasive in São Paulo state



Hedychium



The evapotranspiration rate is altered by an invasive species, *Hedychium coronarium*, under a greenhouse condition

Drielli Vergne¹, Mariane Zanatta¹, Edson Wendland², Jamil Anache², Livia Rosalem², Jean Duarte², Dalva Silva Matos¹

¹Federal University of São Carlos, São Carlos, Brazil. ²University of São Paulo, São Carlos, Brazil

Litter accumulation and biomass dynamics in riparian zones in tropical South America of the Asian invasive plant *Hedychium coronarium* J. König (Zingiberaceae)

Wagner A. Chiba De Castro¹, Renata V. Almeida, Rafael O. Xavier², Irineu Bianchini, Hamilton Moya & Dalva M. Silva Matos¹

situations: 1) we planted only *H. coronarium*; 2) we planted native species; and 3) we planted *H. coronarium* and native species (mixture). Adapted to each of 9 biometers with a diver which measure the evapotranspiration 15 minutes. We compare the data using t-test. Mann-

Toxicity of rhizomes of the invasive *Hedychium coronarium* (Zingiberaceae) on aquatic species

Rosane Oliveira Costa¹, Bruna Horvath Vieira², Evaldo Luiz Gaeta Espindola³, Alany Ingrid Ribeiro⁴, Julia Lima Ribeiro Ferro⁵, João Batista Fernandes⁶, Dalva Maria da Silva Matos¹



Flora

journal homepage: www.elsevier.com/locate/flora

Chemical characterization and phytotoxicity of the essential oil from the invasive *Hedychium coronarium* on seeds of Brazilian riparian trees^{2*}
Rosane Oliveira Costa¹, Celso Markowitsch José², Maria Tereza Grombone-Guaratini³, Dalva Maria Silva Matos⁴



capybaras



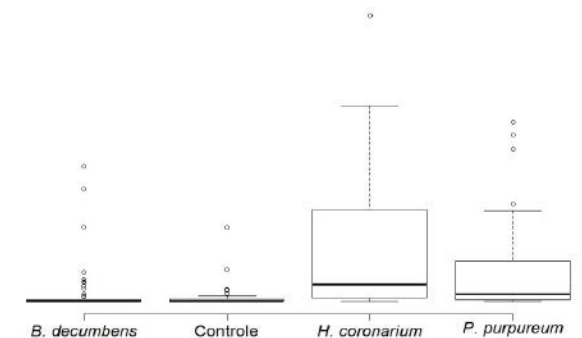
ticks

Bioscience, vol. 13, no. 4

First record of herbivory of the invasive macrophyte *Hedychium coronarium* J. König (Zingiberaceae)

Wagner Antonio Chiba de Castro^{1,2,3}, Marcel Lago Molinari⁴, Gabriela Monteiro Lobato⁵, Marcela Bianchessi da Cunha-Santini^{2,3} & Dalva Maria da Silva Matos^{2,3}

Rocky Mountain spotted fever



30/12/2014 14h22 - Atualizado em 30/12/2014 15h50

Região de Campinas tem 40% dos casos de febre maculosa do Brasil

Foram 5 mortes na cidade este ano contra 3 no mesmo período de 2013. "Se identificada precocemente a doença tem tratamento", afirma médico.

Revista da Sociedade Brasileira de Medicina Tropical
30(1):47-52, Jan-Jun, 1997.

FEBRE MACULOSA NO MUNICÍPIO DE PEDREIRA, SP, BRASIL. INQUÉRITO SOROLÓGICO

Yvone Martins Fozes Del Guercio, Marilú Mendes M. Rocha, Elicides H.R. Melles, Virgília C.L. de Lima e Maria G. Pignatelli



Plant invasion → biodiversity conservation + ecosystems services sustainability

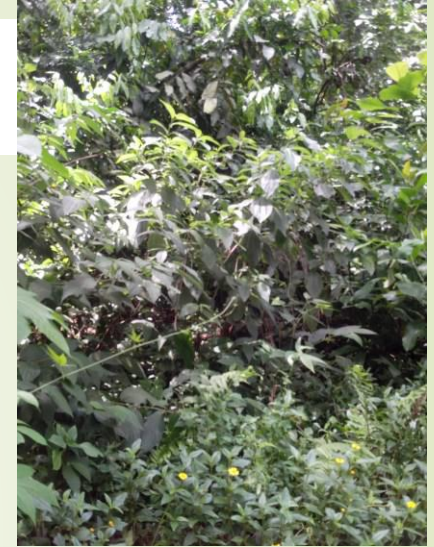



Sphagneticola trilobata, native from Brazil
(*Wedelia trilobata*)

Problem



Solution



 Urban Ecosystems, 6: 151–161, 2002
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Fire and restoration of the largest urban forest of the world in Rio de Janeiro City, Brazil

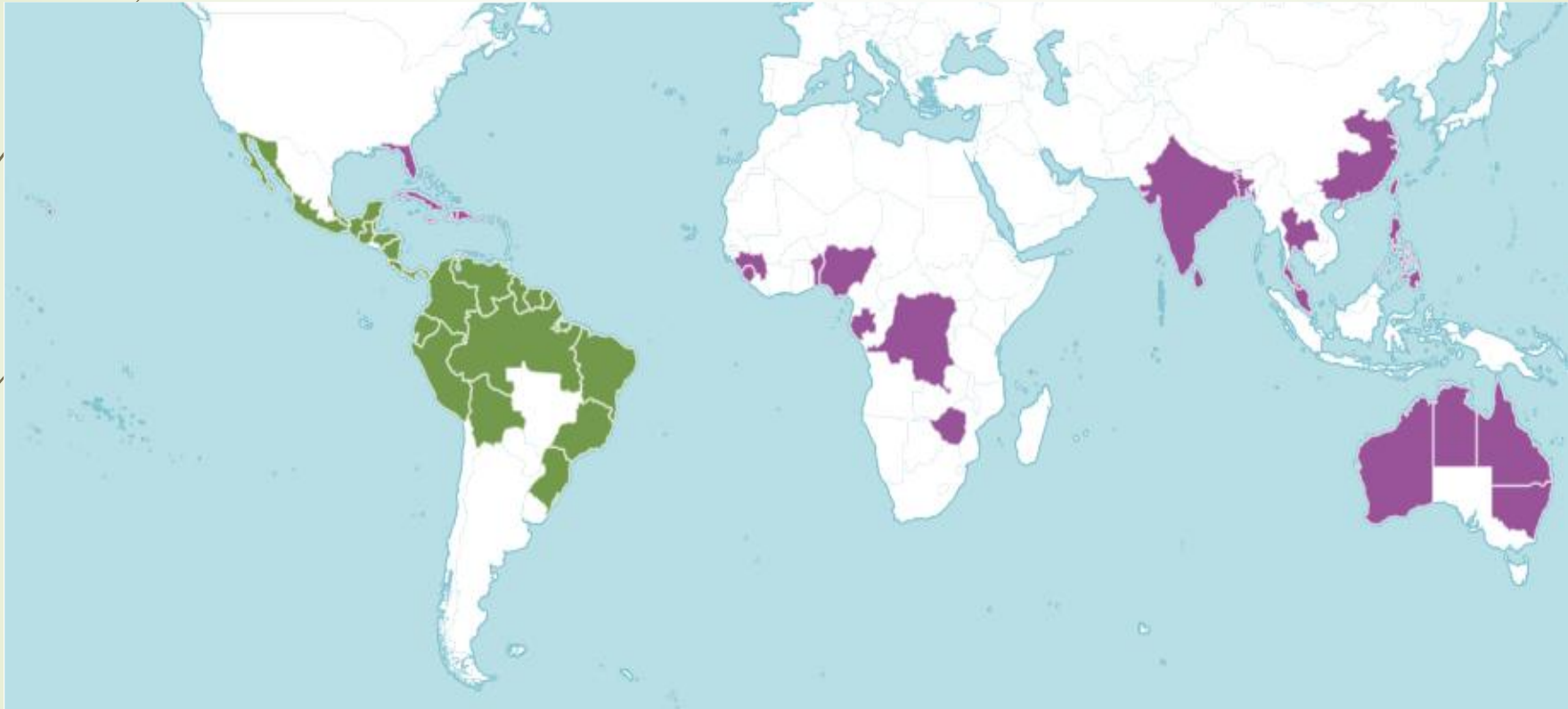
D.M. SILVA MATOS*
Depto de Ciências Naturais, ECB, Universidade do Rio de Janeiro (UNIRIO),
Av. Pasteur 458, Urca, Rio de Janeiro (RJ)—CEP 22290-240, Brazil
dmatos@ism.com.br

C. JUNIUS F. SANTOS
IBAMA, Estrada da Cascatinha 850, Alto da Boa Vista, Floresta da Tijuca,
Rio de Janeiro (RJ)—CEP 20531-590, Brazil

D. DE R. CHEVALIER
IBAMA, Edifício Sede, SAIN, AV. L4 Norte, Caixa Postal 09870,
Brasília (DF)—CEP 70800-200, Brazil

Plant invasion → biodiversity conservation + ecosystems services sustainability

Sphagneticola trilobata, native in Brazil invasive in China
(*Wedelia trilobata*)



Native ■ Introduced ■





Plant invasion → biodiversity conservation + ecosystems services sustainability

Our native, our solution



Invasive, a problem in China



Effects of leaf litter on inter-specific competitive ability of the invasive plant *Wedelia trilobata*

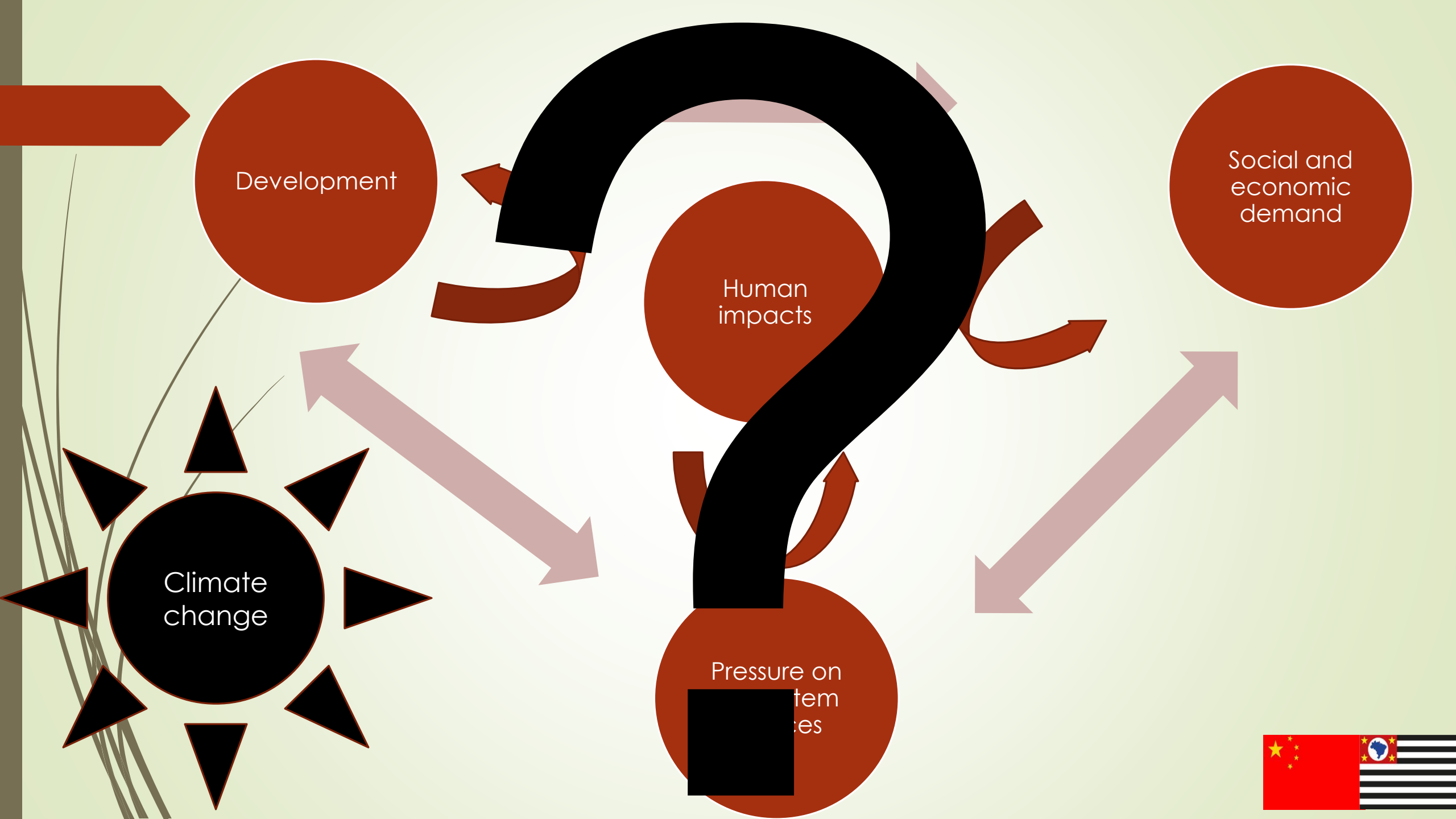
[Zhi-Cong Dai](#), [Xiao-Ying Wang](#), [Shan-Shan Qi](#) ✉, [Hong-Hong Cai](#), [Jian-Fan Sun](#), [Ping Huang](#) & [Dao-Lin Du](#) ✉

Effects of *Wedelia trilobata* Invasion on Soil Microorganisms and Soil pH

SU Qin1, DU Chen2, ZHENG An-ni2, WEI Yu-kun3, XU Hua2, HUANG Xi-jie2 (1. College of Business, Wuhan

Curvilinear Effects of Invasive Plants on Plant Diversity: Plant Community Invaded by *Sphagneticola trilobata*

[Shan-Shan Qi](#) ✉, [Zhi-Cong Dai](#) ✉, [De-Li Zhai](#), [Si-Chong Chen](#), [Chun-Can Si](#), [Ping Huang](#), [Rui-Ping Wang](#), [Qiong-Xin Zhong](#), [Dao-Lin Du](#) ✉



Development

Social and economic demand

Human impacts

Climate change

Pressure on ecosystems



Interests in mutual cooperative work :

- Assessment of the biology of invasive species, from their native and invaded habitats, at current and future climate scenarios;
- Assessment of the vegetation change impact considering the current and future climate scenarios;
- Scientific based solutions to the conservation of ecosystem services along time.





谢谢 Obrigada



Prof. Dalva M. Silva Matos
E-mail: dmatos@ufscar.br
Lab. Ecology and Conservation
Hydrobiology dep. – Federal University of São Carlos