

### **Zutao Ouyang**

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#### **Educational background**

The University of Toledo	Aug.2011-	Ecology	PhD student

Fudan University Sep.2007 – Jul.2010 Ecology M. Sc

Sun Yet-Sen University Sep.2003 – Jul.2007 GIS B. Sc

#### Project and work experience

#### ➤ Island resources investigation of Shanghai by remote sensing (2007/9 – 2009/10):

As executive organizer and technical leader, provide technical support and report to committee.

#### **Soil erosion investigation of Guangdong province by remote sensing (2006/6 - 2006/7):**

As one of the five most important members in the team, in charge of pretreatment of 7 scenes of CBERS image, including radiometric correction, geo-rectification and image synthesis and so on.

#### **▶** Land use /land cover investigation of Guangdong province by remote sensing (2006/3 – 2006/6):

As one of the only two undergraduate students, use ArcInfo and PCI Geomatica to process Landsat image and interpret land use/land cover from them.

# > Summer intern in Bureau of Land Planning of Zengcheng city, Guangdong, China (2006/7 - 2006/9):

As the only one who was chose from the team, take charge of the database maintenance and data transformation.

## Part-time job in Bureau of Land Planning of Nanhai city, Guangdong, China (2006/10 - 2006/11):

As technical adviser, help them establish a land use/land cover geodatabase and map the land use/land cover according to administrative divisions.

#### Research experiences

# Field research assistant, Yellow river delta, China (2007/9 - 2007/10, 2008/7 - 2008/8, 2009/8 - 2009/9):

The team tried to evaluate the effect of road construction during oilfield exploration on local biodiversity and field-derived spectral of a wide range of vegetation as indicators of soil salinization

in the Yellow River Delta. The distribution of plant species along road with different age were recorded by line transects survey. More than 500 sampling points were located for spectrum measure on the delta according to different levels of soil salinization and plant type.

# Investigator, Chongming Dongtan National Natural Reserve, Shanghai, China. (2008/10 - 2009/10):

The spectrum of three dominant estuarine plants was recorded every month with a PPSystem spectrometer (a spectrometer with dual channel which can measure solar irradiance and reflected radiance from target simultaneously).

#### Research Team Member, National Natural Science Foundation of China (2007/10 - 2008/12):

Evaluate the performance of the objected-oriented approaches on mapping estuarine plants at species level using QuickBird imagery.

# Research Team Member, Program for New Century Excellent Talents in University funded by the Ministry of Education of China (2008/10 - present):

Study the spectral discrimination of invasive plant *Spartina alterniflora* against other native plants in different phenological stages on an estuarine wetland. The study aims to identify the wavelength position and the suitable phenological stages for discriminating the invasive plant, and provides basic information for invasive plant detection in the wetland ecosystems.

#### **Attended conferences and training**

#### > Advanced ecology lecture, Shanghai, China (2008/6):

The two weeks of seminar aimed to promote the theory level and research ability of the young ecologist in China. It focused on the frontier issues confronted by the ecologists and gave suggestions to the ecologists as how to become outstanding in this field

#### **Training on Arcgis mapping, Tianjin, China (2008/11):**

Trainees are trained to how to map scientific data professionally using Arcgis, and how to analysis data with spatial analysis techniques.

## ➤ International conference on landscape ecology and forest manage: challenges and solutions (2008/9/16 – 2009/8/19):

I made a poster presentation" Application of linear spectral mixture analysis of Landsat TM imageries in monitoring estuarine invasive plant".

#### **Papers**

- Meimei He, Bin Zhao\*, **Zutao Ouyang**, Yaner Yan, Bo Li; 2010. Linear spectral mixture analysis of Landsat TM data for monitoring invasive estuarine vegetation. International Journal of Remote Sensing 31, 4319-4333.
- ➤ Yaner Yan, **Zutao Ouyang**, Haiqiang Guo, Shusong Jin, Bin Zhao\*; 2010. Detecting the spatiotemporal changes of tidal flood in the estuarine wetland by using MODIS time series data. Journal of hydrology 384, 156-163
- ➤ Zutao Ouyang, MoQian Zhang, Xiao Xie, Qi Shen, HaiQiang Guo, Bin Zhao \*; 2011. A comparison of pixel-based and object-oriented approaches to VHR imagery for mapping saltmarsh plants. Ecological Informatics 6, 136-146
- > Zeng S-L, Zhang T-T, Gao Y, **Ouyang Z-T**, Chen J-K, Li B, Zhao B\*; 2011. Effects of road age and distance on plant biodiversity: a case study in the Yellow River Delta of China. Plant Ecology. 212,1213–1229
- > Zhang T-T, Zeng S-L, Gao Y, **Ouyang Z-T**, Li B, Fang C-M, Zhao B\*. 2011. Assessing impact of land uses on land salinization in the Yellow River Delta, China using an integrated and spatial statistical model. Land Use Policy. 28,857-866
- > Zhang T-T, Zeng S-L,Gao Y, **Ouyang Z-T**, Li B, Fang C-M, Zhao B\*. 2011. Using hyper spectral vegetation indices as a proxy to monitor soil salinity. Ecological Indicators.11, 1552-1562

#### Skills

- ➤ Advanced skills of Microsoft Office
- Proficient in windows OS, understand Linux OS
- Familiar with C and VB programming languages, understand C++ and JAVA
- Understand data organization and software engineer
- Familiar with ArcGIS, ERDAS, ENVI and eCognition

#### > Honors

- Scholarship for Outstanding Students of Sun Yet-Sen university in 2004
- ➤ Three consecutive years of Xianzi Zeng Scholarship from year 2005 to 2007
- > Second place of software engineering programming, Department of Remote Sensing and GIS

Engineering ,Sun Yet-Sen University, 2006

First-grade scholarship of Fudan university in 2008

### > Hobbies

Photography, traveling, computer science, table tennis, swimming