

YA PING WANG (Ph.D., M.Sc., B.Sc.)

CURRICULUM VITAE

Brief introduction by myself:

In recent years, Dr. Wang along with his group has been working on the sedimentary dynamic processes in the near-bottom boundary layers, focusing on 1) the influence of turbulent temporal and spatial structure on the threshold starting condition of sediment movement, 2) the mechanism of floc aggregation and floc settling based on the combination of theoretical analysis and in-situ observation results, and 3) the in situ observations of sediment dynamics and geomorphological evolution of tidal flats under the influence of reclamation. The results could provide the theoretical foundations for the management and predictions of coastal sedimentary evolution, ecological health and sustainable development. In the recent five years, his group has published over 30 papers in the international journals, e.g. JGR-Oceans, Marine Geology.

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Education

Sep., 1997 –July, 2000	Institute of Oceanology, Chinese Academy of Sciences (China) Ph.D. in Oceanography (Marine Sediment Dynamics) Thesis: Sediment dynamics in Jiaozhou Bay and adjoining areas
Sep., 1994 –July, 1997	Nanjing Normal University (China) M.Sc. in Geography (Coastal Geomorphology and Sedimentology) Thesis: Geomorphic and dynamic response in tidal creek systems on tidal mud flats, Jiangsu, China
Sep., 1990 –July, 1994	Nanjing University (China) B.Sc. in Geography (Geomorphology and Quaternary Geology) Thesis: Mechanism of sediment yield and harness countermeasure on the middle reaches of Yellow River

Work Experience

2017/09 – present: Professor, State Key Laboratory of Estuarine and Coastal Research (SKLEC), East China Normal University
2006/12 – present: Professor, School of Geography and Oceanography, Nanjing University
2003/11 – 2006/11: Associate Professor, School of Geography and Oceanography, Nanjing University
2000/09 – 2002/10: Postdoc, Department of Geography, Nanjing University

Awards and Group Memberships

Acta Oceanologica Sinica, Journal Editorial Board member (2016~)
Anthropocene Coasts, Journal Associate Editor (2017~)
CERF (Coastal Education & Research Foundation, Inc.) society member

Publications

Jieping Tang, Ya Ping Wang*, Qingguang Zhu, Jianjun Jia, Jilian Xiong, Peng Cheng, Hui Wu, Dezhi Chen, Hao Wu, 2019. Winter storms induced high suspended sediment concentration along the north offshore seabed of the Changjiang estuary. *Estuarine, Coastal and Shelf Science*, doi: <https://doi.org/10.1016/j.ecss.2019.106351>

Yang Yang, Shu Gao, Ya Ping Wang, Jianjun Jia, Jilian Xiong, Liang Zhou, 2019. Revisiting the problem of sediment motion threshold. *Continental Shelf Research*, doi: <https://doi.org/10.1016/j.csr.2019.103960>.

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Dezhi Chen, Gongfu Ye, Wei Gao, Longhui You, Sen Nie, Ya Ping Wang*, 2018. Ecological response of *Casuarina equisetifolia* to environmental stress in coastal dunes in China. *Journal of Forest Research*, 23(3): 173-182. DOI: 10.1080/13416979.2018.1469209

Jilian Xiong , Xiao Hua Wang, Ya Ping Wang*, Jingdong Chen, Benwei Shi, Jianhua Gao, Yang Yang, Qian Yu, Mingliang Li, Lei Yang, Xulong Gong, 2017. Mechanisms of maintaining high suspended sediment concentration over tide-dominated offshore shoals in the southern Yellow Sea. *Estuarine, Coastal and Shelf Science*, 191: 221-233. doi: 10.1016/j.ecss.2017.04.023

Wang Yaping, Shi Benwei, Zhang Liang, Jia Jianjun, Xia Xiaomin, Zhou Liang, Yu Rui, Yang Yang, Gao Jianhua. 2017. Assessing the vulnerability of changing coasts, Hainan Island, China. *Acta Oceanologica Sinica*, 36(4): 114–120. doi: 10.1007/s13131-017-0972-8

Qingguang Zhu, Ya Ping Wang*, Shu Gao, Jicai Zhang, Mingliang Li, Yang Yang, and Jianhua Gao, 2017. Modeling morphological change in anthropogenically controlled estuaries. *Anthropocene*, 17: 70-83.

Zhao, Y., Yu, Q., Wang, D., Wang, Y. P., Wang, Y., & Gao, S. (2017). Rapid formation of marsh-edge cliffs, Jiangsu coast, China. *Marine Geology*, 385, 260-273.

J. H. Gao, J. Jia, H. Sheng, R. Yu, G. C. Li , Y. P. Wang , Y. Yang, Y. Zhao, J. Li, F. Bai, W. Xie, A. Wang, X. Zou, and S. Gao, 2017. Variations in the transport, distribution, and budget of ²¹⁰Pb in sediment over the estuarine and inner shelf areas of the East China Sea due to Changjiang catchment changes. *Journal of Geophysical Research: Earth Surface*, 122, doi:10.1002/2016JF004130.

Qian Yu, Yunwei Wang , Benwei Shi , Ya Ping Wang, Shu Gao, 2017. Physical and sedimentary processes on the tidal flat of central Jiangsu Coast, China: headland induced tidal eddies and benthic fluid mud layers. *Continental Shelf Research*, 133: 26–36. DOI: 10.1016/j.csr.2016.12.015

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Benwei Shi, James R. Cooper, Paula D. Pratolongo, T. J. Bouma, Gaocong Li, Peng Li, Ya Ping Wang*, Qian Yu, 2017. Erosion and accretion on a mudflat: The importance of very shallow-water effects. *Journal of Geophysical Research: Oceans*, 122: 9476–9499. <https://doi.org/10.1002/2016JC012316>

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Yang Yang, Ya Ping Wang*, Chunyan Li, Shu Gao, Benwei Shi, Liang Zhou, Dandan Wang, Gaocong Li, Chen Dai, 2016. On the variability of near-bed floc size due to complex interactions between turbulence, SSC, settling velocity, effective density and the fractal dimension of flocs. *Geo-marine Letters*, 36(2): 135-149. DOI: 10.1007/s00367-016-0434-x

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J. H. Gao*, J. Jia, Y.P. Wang*, Y. Yang, J. Li, F. Bai, X. Zou, and S. Gao, 2015. Variations in quantity, composition and grain size of Changjiang sediment discharging into the sea in response to human activities. *Hydrology and Earth System Sciences*, 19: 645-655. doi: 10.5194/hess-19-645-2015

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Yunling Liu, Ya Ping Wang*, Yan Li, Jianhua Gao, Jianjun Jia, Xiaoming Xia, 2012. Coastal embayment long-term erosion/siltation associated with P-A relationships: a case study from Jiaozhou Bay, China. *Journal of Coastal Research*. 28(5): 1236-1246. DOI: 10.2112/JCOASTRES-D-11-00158.1

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Shu Gao, Ya Ping Wang, Jian-hua Gao, 2011. Sediment retention at the Changjiang sub-aqueous delta over a 57 year period, in response to catchment changes. *Estuarine, Coastal and Shelf Science*, 95: 29-38. doi:10.1016/j.ecss.2011.07.015

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Ma Fei, Wang Yaping*, Li Yan, Ye Changjiang, Xu Zhiwei, Zhang Fan, 2010. The application of geostatistics in grain size trend analysis: A case study of eastern Beibu Gulf. *Journal of Geographical Science*, 20(1): 77-90. DOI: 10.1007/s11442-010-0077-1

Shu Gao and Ya Ping Wang, 2008. Changes in material fluxes from the Changjiang River and their implications on the adjoining continental shelf ecosystem. *Continental Shelf Research*, 28: 1490-1500. DOI:10.1016/j.csr.2007.02.010

Hee Jun Lee, Ya Ping Wang and Yong Shik Chu, and Hyung R.Jo, 2006. Suspended Sediment Transport in the Coastal Area of Jinhai Bay—Nakdong Estuary, Korea Strait. *Journal of Coastal Research*, 22(5): 1062-1069.

Wang Yaping, Gao Shu, Jia Jianjun, 2006. High-resolution data collection for analysis of sediment dynamic processes associated with combined current-wave action over intertidal flats. *Chinese Science Bulletin*, 51(7): 866-877.

Jia Jianjun, Wang Yaping, Gao Shu, Wang Aijun, Li Zhanhai, 2006. Interpreting grain-size trends associated with bedload transport on the intertidal flats at Dafeng, central Jiangsu coast. *Chinese Science Bulletin*, 51(3): 341-351.

Wang Yaping, Chu Yong Shik, Lee Hee Jun, Han Choong Keun and Oh Byung Chul, 2005. Estimation of suspended sediment flux from acoustic Doppler current profiling along the Jinhai Bay entrance. *Acta Oceanologica Sinica*, 24(2):16-27.

Wang Yaping, Shu Gao and Xiankun Ke, 2004. Observations of boundary layer parameters and suspended sediment transport over the intertidal flats of northern Jiangsu, China. *Acta Oceanologica Sinica*, 23(3): 437-448.

Ya Ping Wang and Shu Gao, 2001. Modification to the Hardisty equation, regarding the relationship between sediment transport rate and grain size. *Journal of Sedimentary Research*, 71(1):117-120.

Wang Yaping, Gao Shu and Li Kunye. 2000. A preliminary study on suspended sediment concentration measurements using an ADCP mounted on a moving vessel. *Chinese Journal of Limnology and Oceanology*, 18(2): 183-189.

Ya Ping Wang, Renshun Zhang and Shu Gao, 1999. Velocity Variations in Salt Marsh Creeks, Jiangsu, China. *Journal of Coastal Research*, 15(2): 471-477.

Wang Yaping, Zhang Renshun and Gao Shu, 1999. Geomorphic and Hydrodynamic Responses in Salt Marsh - Tidal Creek Systems, Jiangsu, China. *Chinese Science Bulletin*, 44(6): 544-549.

Research Programmes (PI)

Morphodynamics and Evolution of Open Tidal Flats with Sand Ridges in the Southern Yellow Sea. China NSF (No. 41376044). 2014-2017. RMB 900,000 (about USD140,000).

Land-ocean boundary processes and their impacts on the formation of the Yangtze deposition system: material exchanges between the watershed, coasts and continental shelves. National Basic Research Program of China (No. 2013CB956502). 2013-2017. RMB 2,000,000 (about USD320,000).

Monitoring and Development of support system on seabed topographical changes in Pearl River Estuary and Taiwan Shoal. Ocean special funds for scientific research on public causes (No. 201105001-2). 2011-2014. RMB 1,570,000 (about USD240,000).

Simulation on the evolution and realignment of North branch, Changjiang Estuary (No. BK2010050). Jiangsu Key NSF. 2010-2012. RMB 250,000 (about USD38,000).

Physical processes near bottom boundary layer in shallow seas with strong tides and high turbid water. China NSF (No. 40876043). 2009-2011. RMB 500,000 (about USD77,000).

Study and strategy on typical marine hazards of Hainan. Comprehensive Survey and Evaluation Program of Coastal Sea, Hainan Province (No. HN908-02-05). 2008-2011. RMB 250,000 (about USD38,000).

Sediment dynamics and associated environment response in intertidal area and estuary. Program for New Century Excellent Talents in University (No. NCET-06-0446). 2007-2009. RMB 500,000 (about USD77,000).

Wave-current dynamic processes and tidal basin system evolution over tidal flats. China NSF (No. 40576040). 2006-2008. RMB 380,000 (about USD58,000).

Travel History

2015/06 – 2015/10: : Senior Research Scholar, The University Of New South Wales, Canberra Act 2600 Australia

2013/09 – 2014/01: Visiting Professor, National Sun Yat-sen University, Kaohsiung

2011/10 – 2012/02: Senior Research Scholar, University of South Carolina, Columbia, SC

2003/01 – 2004/12: Visiting Scholar, Virginia Institute of Marine Science, Gloucester Point, VA

Research Interests

Marine Sediment Dynamics (tidal flat and saltmarsh processes; coastal and continental shelf sediment transport)

Benthic Boundary Layer Processes (wave-current interaction; sediment resuspension; hydrodynamic and turbulence measurements)

Estuarine and Coastal Morphodynamics