

## Requests for Collaboration

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<p><b>Research Interests</b></p>	
<ul style="list-style-type: none"> <li>● Aquatic environment in estuaries and coastal seas</li> <li>● Ecosystem function of tidal flats</li> <li>● Environmental restoration of urban river and coastal zone</li> </ul>	
<p><b>Creative Achievements in The Application of New and Existing Science and Technology</b></p>	
<p>(1) The urban coastal seas may contribute to a reduction of CO<sub>2</sub>. I have been investigating air-sea or air-sediment CO<sub>2</sub> fluxes and inorganic carbon distribution in the water, and carbon stock of the sediment by field investigation in Osaka bay. I will propose the relaxation effect on climatic change of coastal ecosystems.</p> <p>(2) Tidal flats are important in terms of conservation of coastal environment because they provide many ecosystem services. I have been conducting the field survey at an artificial tidal flat constructed in port and harbor in Osaka bay. The purpose of this study is to evaluate ecosystem function, and to propose adaptable management.</p> <p>(3) Several environmental restoration projects have worked in Yamato river by governments and civil groups, and academia. I research aquatic environment integrity in Yamato river focused on life cycle of Ayu. Especially, I try to estimate the distribution condition of Ayu flowed down from the Yamato river, and the origin of them swimming up Yamato river.</p>	
<p><b>Technology (Product, Process, Device, Service etc.) That I Want to Request for Collaboration</b></p>	
<ul style="list-style-type: none"> <li>● Potential evaluation and effective use of blue carbon in Osaka bay</li> <li>● Sustainable management of artificial tidal flat in Osaka-nanko bird sanctuary</li> <li>● Ecosystem integrity assessment on Yamato river based on life cycle of Ayu</li> <li>● Automatic monitoring of coastal environmental information by sensor measuring color of water</li> </ul>	
<p><b>A List of 5 Key Publications</b></p>	
<ul style="list-style-type: none"> <li>• <u>Toru Endo</u>, Junpei Shimano, Daiki Sakai, Ryuichi Fujiwara: Relationship between vertical distribution of pCO<sub>2</sub> in sea and air-sea CO<sub>2</sub> exchange in inner part of Osaka bay, <i>J. JSCE</i>, Ser.B2, Coastal engineering, <b>73</b>, 2, 1231- 1236, 2017. (in Japanese)</li> <li>• Susumu Yamochi, Toshiyuki Tanaka, Yuri Otani, <u>Toru Endo</u>: Effects of light, temperature and ground water level on the CO<sub>2</sub> flux of the sediment in the high water temperature seasons at the artificial north salt marsh of Osaka Nanko bird sanctuary, Japan, <i>Ecological Engineering</i>, <b>98</b>, 330-338, 2017.</li> <li>• <u>Toru Endo</u>, Yusuke Nakano, Noriaki Ikada: Evaluation method of CO<sub>2</sub> exchange at the intertidal flat, the sea surface and the sea bottom of an artificial salt marsh in urban coastal zone, <i>J. JSCE</i>, Ser.B2, Coastal engineering, <b>72</b>, 2, 1447-1452, 2016. (in Japanese)</li> <li>• <u>Toru Endo</u> and Takaaki Shigematsu: Seasonal variations in characteristics of oxygen consumption by the bottom of ports and harbors, <i>J. JSCE</i>, Ser.B2, Coastal engineering, <b>65</b>, 1, 1051-1055, 2009. (in Japanese)</li> <li>• <u>Toru Endo</u>, Takaaki Shigematsu and Yuya Tatebe: Experimental and Numerical Study on Reaeration by a Breakwater for Generating Vertical Circulation Flow, <i>Coastal Structures 2007</i>, 1089-1100, 2009.</li> </ul>	