



# Building an Online Collaborative Database in Southeast Asia – The South China Sea

*Christopher Paterson and Richard Cooper*

The integration of fish habitat considerations and fisheries management is a central theme and challenge of the fisheries component of the UNEP/GEF South China Sea Project (SCS Project). It is also a challenge that fisheries managers in Southeast Asia will continue to face well beyond the completion of the SCS Project and its many habitat demonstration interventions and pilot activities.

This brief article highlights the South China Sea Meta-Database that has recently been developed by the SCS Project, in collaboration with the Southeast Asian Regional Learning Centre (SEA-RLC) and the Southeast Asia START Regional Centre (SEA START RC). This tool provides a central online location for the collation and searching of metadata regarding coastal habitats and fisheries in Southeast Asia. It is a “living” database that can be revised and updated online, providing fisheries and habitat managers with a tool they can collaboratively build and share within the region to bring fisheries and habitat management closer together.

## Data about data?

A problem identified during the development phase of the SCS Project was that, while many valuable data sets on coastal habitats and fisheries in a particular country were available, the sharing of this information was restricted by weak data management systems in most countries. It is also often constrained by limited interaction and communication between fisheries and environment ministries.

So the purpose of the South China Sea Meta-Database was to develop data about existing data sets – in other words, metadata. Metadata would then be made available online for use, allowing the sharing of what data sets exist within the region. The meta-database enables one to easily identify and review information about data sets on coral reefs, seagrass, mangroves, wetlands, fisheries, and land-based pollution.

## The contributors

The metadata have been developed since 2002, with contributions from governments, academic institutions and

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WELCOME to the **South China Sea Meta-database** - an initiative of the UNEP/GEF Project on Reversing Environmental Degradation Trends in the South China Sea and Gulf of Thailand ([UNEP/GEF SCS](#)).

Since 2002, partners of the UNEP/GEF SCS Project have collected metadata on existing environmental datasets in the Southeast Asia region and this information can now be searched online in the South China Sea Meta-database.

The South China Sea Meta-database is a 'living' database that is constantly being updated with new content from SCS project partners in Cambodia, China, Indonesia, Malaysia, Philippines, Thailand and Viet Nam.

non-government organisations in Cambodia, China, Indonesia, Malaysia, Philippines, Thailand and Viet Nam. The organisations initially involved have been the SCS Project's Specialised Executing Agencies, which all recently used the data sets referred to in the meta-database in: (a) national level reviews of coral reefs, seagrass, mangroves, wetlands, fisheries and land-based pollution, and (b) the characterisation of 26 mangrove sites, 43 coral reef sites, 26 seagrass sites, and 41 wetlands sites, during the preparatory phase of the project.

*Homepage of the SCS Meta-Database*  
 (<http://metadata.unepscs.org/metadata>)

# ase for Fisheries Habitat Management ea Meta-Database

## Development of the Online SCS Meta-Database

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**Simple Search**

(select country and component, and then click 'Go' to search meta-database)

<b>Country:</b>	<input type="checkbox"/> Cambodia	<input type="checkbox"/> China	<input type="checkbox"/> Indonesia	<input type="checkbox"/> Malaysia
	<input type="checkbox"/> Philippines	<input type="checkbox"/> Thailand	<input type="checkbox"/> Vietnam	
<b>Component:</b>	<input type="checkbox"/> Coral Reefs	<input type="checkbox"/> Mangroves	<input type="checkbox"/> Seagrasses	<input type="checkbox"/> Wetlands
	<input type="checkbox"/> Fisheries	<input type="checkbox"/> Land-based Pollution		

Go Reset

Many databases developed as part of past environment and fisheries projects in the region have lasted only as long as the projects themselves. Drawing on the expertise of

*Simple search form showing country and component options*



SEA-RLC and SEA START RC, the SCS Project has aimed to develop a tool that is intuitive, user friendly, and updatable online by the scientists and managers in the countries bordering the South China Sea and Gulf of Thailand. It is expected that the Meta-Database will continue to be used beyond the life of the Project.

### **A search tool for identifying environmental datasets**

The SCS Meta-database functions as a search tool for identifying environmental and fisheries data sets of the South China Sea and Gulf of Thailand region. It offers simple and advanced search features. A simple search uses a combination of selecting a country and a component. Output results include the data set name, producer, key parameters and keywords, contact details and a downloadable summary of the metadata for the data set. The advanced search allows users to refine their search by specifying one or more terms for particular components of the database.

### **Updating online**

A total of 39 habitat, fisheries and land-based pollution specialists within the region have been assigned rights to log in to the meta-database and edit existing metadata entries, and add new entries as new data sets become available. It is hoped that assigning responsibility for the meta-database to those working in the countries will help in building the longer-term sustainability of the tool, and will provide an effective forum for peer-review of metadata entries.

### **A meta-database template for other projects and organisations**

In addition to supporting the objectives of the SCS Project, the SCS Meta-Database can, through minor customisation, be applied to other projects and organisations. Such technology transfer avoids duplication of effort and wasted resources, and allows users to modify the system to meet their own specific requirements. The template can be installed and customised to run on both Windows and Linux operating systems, and once installed, users can insert the logo of their respective organisation, and change the countries and ecosystem components. To aid installation and customisation, an installation manual is available for download from the South China Sea ([www.unepscs.org](http://www.unepscs.org)) and SEA-RLC ([www.iwsea.org](http://www.iwsea.org)) websites. The SCS meta-database is thus a tool that functions not only as a key information resource to help fisheries habitat management in Southeast Asia, but one that can also be customised and applied for any location worldwide.

### **Benefits of collaboration**

Collaborative activities such as the development of this meta-database are important in ensuring that ecosystem data and information, regularly updated, are made more accessible to the wider community. The SCS Meta-database can benefit fisheries management by highlighting what fisheries and habitat data exist and where they can be accessed, a task that previously required considerable time and effort.

Comments from users are encouraged in order to help us refine the meta-database and improve its ease of use. While the SCS Meta-Database has been developed in close collaboration with the SCS Project partner network, we welcome any feedback on how it might be improved to meet the requirements for a wider community of users.

Another collaborative initiative between the SCS Project, SEA-RLC and SEA START RC is the development of the South China Sea GIS Database. Similar to the SCS Meta-Database, this is a web-based collaborative system that will allow fisheries managers and researchers the opportunity to share GIS-based data and information. More information on this can be found on the SCS project website or by contacting the authors.

### Homepage of the SCS Meta-Database

<http://metadata.unepscs.org/metadata>



#### ABOUT THE AUTHOR

**Christopher Paterson** is the Fisheries Expert in the Project Co-ordinating Unit of the UNEP/GEF South China Sea Project. He began his career working in the field of fishing gear selectivity, and from 1997-2002 was employed as a Lecturer in Marine Policy and Management with the Faculty of Fisheries and Marine Environment at the Australian Maritime College. Prior to joining the South China Sea Project in 2005, he worked briefly with SEAFDEC's Training Department.

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