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# An Introduction To Using GIS In Marine Biology: Supplementary Workbook One: Creating Maps Of Species Distribution (Psls)

*By Colin D. MacLeod*



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**An Introduction To Using GIS In Marine Biology: Supplementary Workbook One: Creating Maps Of Species Distribution (Psls)** By Colin D. MacLeod

This is the first supplementary workbook produced to accompany 'An Introduction To Using GIS In Marine Biology' by the same author. It is designed to augment the information on using GIS in marine biology provided in that book, and indeed, to be used alongside it rather than to be used independently as a stand-alone volume.

This second edition has been updated for ArcGIS 10.1 software and it contains five exercises covering the practical use of GIS in marine biology. These exercises are based around mapping species distribution and range from making a simple map of the locations where a species has been recorded to creating grids of species presence-absence, species richness and abundance.

Working through these five exercises will help the novice GIS user obtain experience in working with GIS and so develop their GIS skills. Unlike most other GIS tutorials, this information is specifically presented in a marine biological context and all the exercises use real data from a marine biological study. Therefore, these exercises are more likely to provide the kind of experience in using GIS that marine biologists will find useful and applicable to their own research.

These exercises are presented in the same easy-to-follow flow diagram-based format first introduced in the 'How To...' section of 'An Introduction To Using GIS In Marine Biology'. They are accompanied by images which show the user how their GIS project should look as they progress through the exercises, allowing them to compare their own work to the expected results.

This is part of the PSLS series of books which use Task-Oriented Learning (TOL) to teach the practical application of research skills to the life sciences. This involves demonstrating how these skills can be used in the specific circumstances in which they are likely to be required rather than concentrating on teaching theoretical frameworks or on teaching skills in a generic or abstract manner. By seeing how the similar processes are used to achieve a variety of different goals within a specific field, it becomes easier for the reader to identify the general rules behind the practical application of these processes and, therefore, to transfer them to novel situations they may encounter in the future.

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### **Editorial Review**

#### **About the Author**

Dr. Colin D. MacLeod has twenty years experience as a marine biologist working with whales and dolphins, seabirds and squid. He has also spent over a decade working with geographic information systems (GIS) and teaching marine biologists and ecologists how to use it in their research.

### **Users Review**

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##### **Charles Stubblefield:**

People live in this new time of lifestyle always aim to and must have the spare time or they will get wide range of stress from both lifestyle and work. So , whenever we ask do people have free time, we will say absolutely sure. People is human not just a robot. Then we question again, what kind of activity do you possess when the spare time coming to an individual of course your answer may unlimited right. Then ever try this one, reading books. It can be your alternative within spending your spare time, often the book you have read is usually An Introduction To Using GIS In Marine Biology: Supplementary Workbook One: Creating Maps Of Species Distribution (Psls).

**Dennis Haney:**

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