

ملخصات الأبحاث المدعومة المنشورة في مؤتمرات :

كلية العلوم

الدكتور توفيق جمال فروخ

(DNA barcoding for species identification of fish)

الذي نُشر في:

(Integrated Coastal Zone Management)

الذي عُقد في أزمير/تركيا خلال الفترة 20-22/10/2009.

ملخص البحث :

DNA barcoding is an emerging global for identifying species using gene sequences. It began in 2003 with the proposal that organisms could be assigned to their correct species using a short gene sequence from a standardized position in the genome. By using genetic data rather than morphological features, barcoding can identify specimen that challenge the most expert taxonomist: larval forms, eggs, damaged or partial specimens (including gut contents and fecal matter) , and derivative forms (e.g.fish files). The Fish Barcoding of life Initiative (FISH – BOL) is a global effort to coordinate an assembly of standardized reference DNA barcode library for all fish species, one that is derived from voucher specimens with authoritative taxonomic identification. FISH – BOL ([http:// barcoding .si.edu](http://barcoding.si.edu)) is creating valuable public resource in the form of an electronic database containing DNA barcodes , images, and geospatial coordinates of examined specimens.

Total genomic DNA is extracted from fish samples. The mitochondrial marker Cytochrome Oxidase I (COI) is amplified and sequenced. Sequences are then aligned and similarities among them are assessed based on phylogenetic trees. Comparisons between the obtained genetic identification and the current identification based on morphology is assessed.

