

From the different populations, 79 starfish were collected from locations in the Red Sea and the Mediterranean Sea (Fig. 3A). The relationship among the starfish was analyzed using parsimony analysis (PAUP program), in which only phylogenetically informative characters are used to construct the shortest tree, by stepwise addition of taxa and characters. All the primers yielded the same band patterns in all the specimens from the Mediterranean Sea, while different patterns were displayed in the populations from the Red Sea. All of the 185 bands scored (100%) were polymorphic among the 32 specimens from Elat, while only 4.6% appeared to be polymorphic among the 47 specimens taken from the Mediterranean Sea. 3 compares RAPD patterns obtained from the fissiparous starfish from the Mediterranean (Fig. 3B) using another primer. 1