

Table 4.6 Marine introduced species in intertidal and subtidal waters of Massachusetts

Taxonomic Species	NSOS	SEOS	MB	CCBOS	CCOS	CIOS	Data Source
Protista <i>Haplosporidium nelsoni</i> (MSX oyster disease)				●		●	Hickey per. com. 2001
Chlorophyceae <i>Codium fragile</i> ssp. <i>fragile</i> (green fleece)	●	●	●	●	●	●	Pappal per. com. 2008; Pederson et al. 2005
Phodophyceae <i>Grateloupia turuturu</i> (red algae) <i>Neosiphonia harveyi</i> (red algae) <i>Porphyra yezoensis</i> <i>fyezoensis</i> (nori, red alga) <i>Porphyra katadae</i> (nori, red algae)	●		● ● ●	● ●		● ●	Mathieson et al. 2008b Pederson et al.2005 Mathieson et al.2008a Mathieson et al.2008a
Porifera <i>Halichondria bowerbanki</i> (sponge)			●			●	Pederson et al.2005
Nematoda <i>Anguillicola crassus</i> (eel nematode)	●	●	●	●		●	Aieta per. com. 2008
Cnidaria <i>Diadumene lineata</i> (orange striped anemone) <i>Sagartia elegans</i> (purple anemone)	●	● ●	●	●		●	Pappal per. com. 2008; Pederson et al. 2005 Pederson et al. 2005
Polychaeta <i>Jannapagenstecheri</i> (spirorbid worm)			●			●	Pederson et al. 2005
Mollusca <i>Littorina littorea</i> (common periwinkle) <i>Ostrea edulis</i> (flat oyster) <i>Tritonia plebeia</i> (sea slug)	●	● ●	● ● ●	●	●	●	Pappal per. com. 2008; Pederson et al. 2005 Pappal per. com. 2008; Pederson et al. 2005 Allmon and Sebens 1998
Arthropoda <i>Laniropsis</i> sp. (isopod) <i>Caprella mutica</i> (skeleton shrimp) <i>Microdeutopus gryllotalpa</i> (amphipod) <i>Carcinus maenus</i> (green crab) <i>Hemigrapsus sanguineus</i> (Asian shore crab)	● ●	● ●	● ● ● ●	● ●	● ●	● ● ● ●	Pederson et al. 2005 Pederson et al. 2005 Pederson et al. 2005 Pappal per. com. 2008; Pederson et al. 2005 Delaney et al. 2008; Pappal per. com. 2008; Pederson et al. 2005
Bryozoa <i>Alyonidium</i> sp. (bryozoans) <i>Bugula neritina</i> (purple bryozoan) <i>Membranipora membranacea</i> (lacy crust)	●	● ●	● ● ●	●			Pappal per. com. 2008 Pappal per. com. 2008; Pederson et al. 2005 Pappal per. com. 2008; Pederson et al. 2005
Tunicata <i>Ascidella aspersa</i> (European sea squirt) <i>Botrylloides violaceus</i> (sheath tunicate) <i>Botryllus schlosseri</i> (star tunicate) <i>Didemnum vexillum</i> (mystery tunicate) <i>Diplosoma listerianum</i> (compound tunicate) <i>Styela canopus</i> (rough tunicate) <i>Styela clava</i> (club tunicate)	● ● ● ● ● ●	● ● ● ● ●	● ● ● ● ●	● ● ● ●	● ●	● ● ● ● ● ●	Pappal per. com. 2008; Pederson et al. 2005 Pappal per. com. 2008; Pederson et al. 2005 Pappal per. com. 2008; Pederson et al. 2005 Pappal per. com. 2008; Pederson et al. 2005 Pappal per. com. 2008; Pederson et al. 2005 Pappal per. com. 2008; Pederson et al. 2005 Pederson et al. 2005 Pappal per. com. 2008; Pederson et al. 2005

Locations: **NSOS** = North Shore Ocean Sanctuary, **SEOS** = South Essex Ocean Sanctuary, **MB** = Massachusetts Bay, **CCBOS** = Cape Cod Bay Ocean Sanctuary, **CCOS** = Cape Cod Ocean Sanctuary, **CIOS** = Cape Cod and Islands Ocean Sanctuary.