Helicocystis moroccoensis removed a priori Vetulocystis catenata Eocrinoidea Gogia -Beidazoon venustum Vetulicola cuneata Eocrinoidea Akadocrinus Rhombifera Macrocystella Rhombifera Pleurocystites Eocrinoidea Ubaghsicystis 100% Eocrinoidea Lyracystis radiata Eocrinoidea Kinzercystis 77% Crinoidea Aethocrinus 98% Edrioasteroidea Camptostroma %Helicoplacus 99% Edrioasteroidea Kailidiscus chinensis -Edrioasteroidea Stromatocystites Solute Castericystis vali Solute Coleicarpus sprinklei 100% -Cornute Ceratocystis perneri Cornute Ponticulocarpus Mitrate Lagynocystis pyramidalis -Mitrate Mitrocystella incipiens 90%Ctenocystoid Courtessolea Ctenoimbricata spinosa Cinctan Bohemiacinctus havliceki Banffia constricta Yanjiahella biscarpa 89% -Pterobranch Cephalodiscus LPterobranch Rhabdopleura 98% Hemichordata Oesia Enteropneusta Spengelidae Glandiceps Enteropneusta Harrimaniidae Saccoglossus Hemichordata Spartobranchus Hemichordata Gyaltsenglossus Rotadiscus Herpetogaster collinsi Phlogites longus Shankouclava anningense Leaf stability Tunicata Ciona Unstable Cephalochordata Branchiostoma Amiskwia sagittiformis Stable

Helicocystis moroccoensis removed a posteriori



