

US EPA ARCHIVE DOCUMENT

TREASURES IN ARCHIVED HISTOPATHOLOGY COLLECTIONS: PRESERVING THE PAST FOR FUTURE UNDERSTANDING.

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Extensive collections of histopathology materials from studies of marine and freshwater mollusks, crustaceans, echinoderms, and other organisms are archived in the Registry of Tumors in Lower Animals (RTLA), the U.S. Environmental Protection Agency, NOAA's National Marine Fisheries Service, and other agency or academic institutions. These collections are valuable resources for scientists seeking to understand health/disease in diverse species, train new invertebrate pathologists, predict risks from biotic/abiotic stressors (e.g., toxicant impacts on organisms in multiple locations), determine disease status through DNA extraction and analysis, supply data for historical reconstructions (e.g., when a virus first affected a host species), examine trends in parasite distribution and prevalence, and improve interpretation of host/parasite population fluctuations for modeling ecosystems. However, they are in danger. For example, RTLA's collection (www.pathology-registry.org) now at Experimental Pathology Laboratories, Sterling, VA, formerly National Cancer Institute funded, lacks current funding for maintenance or processing of additional case submittals. To ensure future availabilities of these irreplaceable resources, online databases with cross-linking records of materials for search and retrieval—as is being developed for the EPA's Atlantic Ecology Division's collections— can provide access, but these collections need cross-agency support to improve their database capabilities, maintain histoslides, and provide hands-on examination and study.

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