

A SEMINAR SERIES WITH

HARTE

2022

**MAY 27th | 12PM- 1PM | HRI CONFERENCE ROOM 127
(ZOOM MEETING OPTION AVAILABLE IN QR CODE LINK BELOW)**

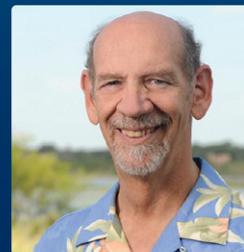
Paul Montagna, Ph.D., HRI Chair for HydroEcology

LONG-TERM BENTHIC DATA IN THREE BASINS CAN BE USED FOR ADAPTIVE MANAGEMENT OF INFLOW STANDARDS

A long-term dataset of benthos (i.e., bottom-dwelling) species and community data collected from Lavaca and Matagorda Bays (Lavaca-Colorado Estuary), San Antonio Bay (Guadalupe Estuary), and Nueces and Corpus Christi Bays (Nueces Estuary) was used to identify the freshwater inflow needs to maintain a “sound ecological environment.” Benthic organisms are ideal bioindicators of freshwater inflow effects on bays and estuaries because they are fixed in space and integrate ephemeral processes in the over-lying water column over long periods of time. The bay systems have different long-term characteristic fauna that reflects the long-term average salinity conditions in each bay system. San Antonio Bay is small, so it has a lower long-term average salinity than Lavaca Bay even though they have about the same amounts of freshwater inflow. The San Antonio Bay community has a higher contribution of mollusks, which are freshwater indicators, than Lavaca Bay, and much higher than Nueces Bay. Within systems, the secondary bays have distinct communities compared to the primary bays because the secondary bays are more oligohaline or brackish than marine influenced primary bays. Response after Hurricane Harvey indicates that benthos are resilient to flood disturbance and recover over time. The relationship between salinity and community structure can be used to evaluate the effectiveness of current freshwater inflow standards in three basin-bay systems along the mid-Texas coast.

MORE ABOUT OUR SPEAKER

Paul Montagna, Ph.D.



Dr. Montagna is Chair for HydroEcology at HRI, Professor in the Physical and Environmental Sciences Department, Regents Professor in Texas A&M University System, and Co-Editor

in Chief for the journal Estuaries and Coasts, and has been studying environmental flow issues for 34 years



Parking permits are required on campus so visitors must reserve space online via [ParkMobile](#). Due to **limited seating**, online participation via **Zoom** is available see link below.

