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The effect of coastal landform development on decadal- to millennial-scale longshore sediment fluxes: Evidence from the Holocene evolution of the central mid-Atlantic coast, USA - Sediment Core and Chronology Data

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Description

These data are sediment core, radiocarbon, and optically stimulated luminescence (OSL) data from the barrier islands and backbarrier lagoons, bays, and marshes of Assateague Island (VA, USA), Chincoteague Island (VA, USA), and Wallops Island (VA, USA). Vibracore data from Tom's Cove, a backbarrier bay, were collected using a vibracore system with the ability to core through a 'moonhole' on a flat bottom boat. Geoprobe cores were collected using a track-mounted 66DT Geoprobe direct-push drill rig. Select samples from the sediment cores (associated with figures and tables in Shawler et al., 2021) were analyzed using a Beckman-Coulter Laser Diffraction Particle Size Analyzer (LS 13 320 Aqueous Liquid Module) with an applied calculation model that uses Fraunhöfer theory. Data are available as Microsoft Excel Workbooks and can be opened using Excel or numerous free and open sources products such as Google Sheets. Each sediment core data spreadsheet contains a "READ ME" tab with additional detail.

The full OSL report from co-author Sebastien Huot is also included and can be accessed with a PDF reader.

Files | Description

- **AssateagueIsland_LighthouseandFishingPoint_Geoprobe_CoreLogs_Shawleretal2021_QSR_07 March2021**: Qualitative sediment core descriptions from Assateague Island direct-push cores
- **ChincoteagueIsland_Geoprobe_Corelogs_Shawleretal2021_QSR_20June2021:** Qualitative sediment core descriptions from Chincoteague Island direct-push cores
- **WallopsIsland_Geoprobe_Corelogs_Shawleretal2021_QSR_20June2021:** Qualitative sediment core descriptions from Wallops Island direct-push cores
- **Tom's Cove_AssateagueIsland_Vibracore_Shawleretal2021_QSR_20June2021:** Qualitative sediment core descriptions from Tom's Cove (southern Assateague Island backbarrier) vibracore
- **Assateague_Chincoteague_Wallops_Facies_GrainSizeAnalysis_Shawleretal2021_QSR_20June2021:** LDPSA grain size distribution data
- **RadiocarbonDates_Shawleretal2021_QSR_18Dec2020:** Editable radiocarbon dates table
- **OSLDates_Shawleretal2021_QSR_20June2021:** Editable optically stimulated luminescence dates table
- **Shawleretal_OSLAges2020_FullReport:** Optically stimulated luminescence report

FILES ARE AVAILABLE AT: https://doi.org/10.25773/53bv-4p15

Keywords

Barrier island, lagoon, sediment core, grain size, optically stimulated luminescence, radiocarbon, Assateague Island, Chincoteague Island, Wallops Island, Tom's cove

Associated Publications

Shawler, J.L., Hein, C.J., Obara, C., Robbins, M.R., Hout, S. and Fenster, M.S. 2021. The effect of coastal landform development on decadal- to millennial-scale longshore sediment fluxes: Evidence from the Holocene evolution of the central mid-Atlantic coast, USA, Quaternary Science Reviews *IN REVISION*

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The statements, findings, conclusions, and recommendations are those of the author(s) and do not necessarily reflect the views of the Commonwealth of Virginia, Center for Innovative Technology, Virginia Sea Grant, NOAA, or the U.S. Department of Commerce.

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