

---

Data

Virginia Institute of Marine Science

---

8-7-2020

## Relative influence of antecedent topography and sea-level rise on barrier-island migration: Sediment Core Data

Justin L. Shawler

*Virginia Institute of Marine Science, justinshawler@gmail.com*

Jennifer E. Connell

*Virginia Institute of Marine Science, jeconnell@vims.edu*

Bianca Q. Boggs

*William & Mary - Department of Geology*

Christopher J. Hein

*Virginia Institute of Marine Science, hein@vims.edu*

Follow this and additional works at: <https://scholarworks.wm.edu/data>



Part of the [Sedimentology Commons](#)

---

### Recommended Citation

Shawler, Justin L.; Connell, Jennifer E.; Boggs, Bianca Q.; and Hein, Christopher J., "Relative influence of antecedent topography and sea-level rise on barrier-island migration: Sediment Core Data" (2020). Data. William & Mary.

<https://doi.org/10.25773/8wx5-zq69>

This Data is brought to you for free and open access by the Virginia Institute of Marine Science at W&M ScholarWorks. It has been accepted for inclusion in Data by an authorized administrator of W&M ScholarWorks. For more information, please contact [scholarworks@wm.edu](mailto:scholarworks@wm.edu).

# Relative influence of antecedent topography and sea-level rise on barrier-island migration: Sediment Core Data

Justin L. Shawler, Virginia Institute of Marine Science

Jennifer E. Connell, Virginia Institute of Marine Science

Bianca Q. Boggs, William & Mary - Department of Geology

Christopher J. Hein, Virginia Institute of Marine Science

---

## Document Type

Data

## Department/Program

Virginia Institute of Marine Science, Physical Sciences, Coastal Geology Laboratory

## Publication Date

8-7-2020

## Description

These data are sediment core data from the barrier islands and backbarrier lagoons, bays, and marshes of Brigantine Island (NJ, USA), Assateague Island (MD, USA), Cedar Island (VA, USA), and Parramore Island (VA, USA). Vibracore data from marshes and bays 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 Figure 9 of Shawler et al., 2020) were analyzed using a Beckman-Coulter Laser Diffraction Particle Size Analyzer (LS 13 320 Aqueous Liquid Module) with an applied calculation model that uses Fraunhofer 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 spreadsheet contains a "READ ME" tab with additional detail.

## Files | Description

- **AssateagueIsland\_Geoprobe\_CoreLogs\_Shawleretal2020\_Sedimentology:** Qualitative sediment core descriptions from Assateague Island direct-push cores
- **AssateagueIsland\_Vibracore\_CoreLogs\_Shawleretal2020\_Sedimentology:** Qualitative sediment core descriptions from Assateague Island vibracores
- **BrigantineandLittleBeachIslands\_Vibracore\_CoreLogs\_Shawleretal2020\_Sedimentology:** Qualitative sediment core descriptions from Brigantine/Little Beach islands vibracores
- **BrigantineIsland\_Geoprobe\_CoreLog\_Shawleretal2020\_Sedimentology:** Qualitative sediment core descriptions from Brigantine Island direct-push core
- **CedarIsland\_Geoprobe\_CoreLogs\_Shawleretal2020\_Sedimentology:** Qualitative sediment core descriptions from Cedar Island direct-push cores

- **CedarIsland\_Vibracore\_CoreLogs\_Shawleretal2020\_Sedimentology**: Qualitative sediment core descriptions from Cedar Island vibracore
- **ParramoreIsland\_Geoprobe\_CoreLogs\_Shawleretal2020\_Sedimentology**: Qualitative sediment core descriptions from Parramore Island direct-push cores
- **ParramoreIsland\_Vibracore\_CoreLogs\_Shawleretal2020\_Sedimentology**: Qualitative sediment core descriptions from Parramore Island vibracores
- **GrainSize\_RawDataforFigure9\_Shawleretal2020\_Sedimentology**: LDPSA grain size distribution data

FILES ARE AVAILABLE AT: <https://doi.org/10.25773/8wx5-zq69>

### Keywords

Barrier island, lagoon, sediment core, grain size, Parramore Island, Cedar Island, Brigantine Island, Little Beach Island, Assateague Island

### Associated Publications

Shawler, J.L., Ciarletta, D., Connell, J., Boggs, B.Q., Lorenzo Trueba, J., and Hein, C.J., Relative influence of antecedent topography and sea-level rise on barrier-island migration, *Sedimentology* *IN PRESS*

Raff, J.L., Shawler, J.L., Ciarletta, D., Hein, E.A., Lorenzo-Trueba, J., and Hein, C.J., 2018, Insights into barrier island stability derived from transgressive/regressive state changes of Parramore Island, Virginia., *Marine Geology*, 403(1): 1-19. <https://doi.org/10.1016/j.margeo.2018.04.007>

Shawler, J.L., Ciarletta, D.L., Lorenzo-Trueba, J., and Hein, C.J., 2019, Drowned foredune ridges as evidence of pre-historical barrier-island state changes between migration and progradation, *The Coastal Sediments Proceedings 2019*, World Scientific.

### ORCID Identifiers

Justin Shawler ORCID id: 0000-0002-8695-5566

Christopher Hein ORCID id: 0000-0002-4990-9405

### Funding

This work was funded by the Mid-Atlantic Sea Grant program (NOAA) award numbers R/71856G and R/71856H. An ExxonMobil/Geological Society of America grant provided partial support for fieldwork on Cedar Island. A Virginia Sea Grant (NOAA) Fellowship (Agency Award NA18OAR4170083) supported Shawler.

### Recommended Citation

Shawler, Justin L.; Connell, Jennifer E.; Boggs, Bianca Q.; and Hein, Christopher J., "Relative influence of antecedent topography and sea-level rise on barrier-island migration: Sediment Core Data" (2020). *Data. William & Mary*. <https://doi.org/10.25773/8wx5-zq69>