

S2 Table. Remotely sensed lidar and aerial photography used to characterize study areas and iPlover dataset points. Information derived from these data sources included distance to ocean, distance to foraging areas, beach width, and elevation for each study area prior to Hurricane Sandy (2010/2011), immediately after the storm (2012), and ca. 2 years after the storm (2014/2015). Light gray cells highlight data used for pre-Sandy analyses, medium gray cells highlight data used for post-Sandy analyses, and dark gray cells highlight data used for ca. 2 years post-Sandy analyses.

Study Area	Dataset	Date of Acquisition	Original Resolution	Source and Availability
Fire Island	2011 National Oceanic and Atmospheric Administration (NOAA) Ortho-rectified Color Mosaic of Fire Island, New York	25 Oct 2011	0.5 m	https://coast.noaa.gov/digitalcoast
	United States Department of Agriculture (USDA)-Farm Service Agency (FSA)-Aerial Photography Field Office (APFO) National Agriculture Imagery Program (NAIP) MrSID Mosaic (used for West Hampton Dunes only)	Oct 2011	1 m	https://gdg.sc.egov.usda.gov/
	2010 U.S. Army Corps of Engineers (USACE) National Coastal Mapping Program (NCMP) Topobathy Lidar: Atlantic Coast (NY)	19-27 Aug 2010	2 m	https://coast.noaa.gov/digitalcoast
	Hurricane Sandy: Rapid Response Imagery of the Surrounding Regions	31 Oct to 06 Nov 2012	0.35 m	http://ngs.woc.noaa.gov/storms/sandy

	2012 U.S. Geological Survey (USGS) topographic lidar: Northeast Atlantic Coast Post-Hurricane Sandy	5-29 Nov 2012	1 m	https://coast.noaa.gov/digitalcoast
	2015 Fire Island Ortho-Imagery (collected at request of Virginia Tech)	15 Apr 2015	0.15 m	Available upon request from Dr. James Fraser (fraser@vt.edu)
	2014 NOAA Post-Sandy Topobathymetric LiDAR: Void DEMs South Carolina to New York	Nov 2013 to Jun 2014	1 m	https://coast.noaa.gov/digitalcoast
Rockaway Peninsula	USDA-FSA-APFO NAIP MrSID Mosaic	Oct 2011	1 m	https://gdg.sc.egov.usda.gov/
	2010 USACE NCMP Topobathy Lidar: Atlantic Coast (NY)	19-27 Aug 2010	2 m	https://coast.noaa.gov/digitalcoast
	Hurricane Sandy: Rapid Response Imagery of the Surrounding Regions	3-4 Nov 2012	0.35 m	http://ngs.woc.noaa.gov/storms/sandy
	2012 USACE Topobathy Lidar: Post Sandy (NJ & NY)	16 Nov 2012	1 m	https://coast.noaa.gov/digitalcoast
	2014 NOAA Ortho-rectified Mosaic of Hurricane Sandy Coastal Impact Area	1 Jan to 21 Apr 2014	0.35 m	https://coast.noaa.gov/digitalcoast
	2013–2014 USGS Coastal and Marine Geology Program (CMGP) LiDAR: Post Sandy (New York City)	6 Aug 2013 to 21 Apr 2014	0.7 m	https://coast.noaa.gov/digitalcoast
Long Beach and Pullen islands	USDA-FSA-APFO NAIP MrSID Mosaic	‘leaf-on’ months 2010	1 m	https://gdg.sc.egov.usda.gov/
	2010 USACE Joint Airborne Lidar Bathymetry Technical Center of eXpertise (JALBTCX) Lidar: New Jersey (Topo)	28 Aug to 11 Sept 2010	2 m	https://coast.noaa.gov/digitalcoast

	Hurricane Sandy: Rapid Response Imagery of the Surrounding Regions	31 Oct to 06 Nov 2012	0.35 m	http://ngs.woc.noaa.gov/storms/sandy
	2012 USGS EAARL-B Coastal Topography: Post-Sandy, First Surface (NJ)	26 Oct to 5 Nov 2012	1.5 m	https://coast.noaa.gov/digitalcoast
	2014 NOAA Ortho-rectified Mosaic of Hurricane Sandy Coastal Impact Area	1 Jan to 21 Apr 2014	0.35 m	https://coast.noaa.gov/digitalcoast
	2014 NOAA Post-Sandy Topobathymetric LiDAR: Void DEMs South Carolina to New York	Nov 2013 to Jun 2014	1 m	https://coast.noaa.gov/digitalcoast
Cedar Island	NAIP Digital Ortho Photo Image	30 May 2011	1 m	https://gdg.sc.egov.usda.gov/
	2010 VA Information Technologies Agency (VITA)/VA Geographic Information Network (VGIN) Lidar: Eastern Shore, VA (Accomack and Northampton Counties)	21-28 Mar 2010	1 m	https://coast.noaa.gov/digitalcoast
	2013 VITA-VGIN VBMP 2013 Ortho Imagery SP South 12 inch	14 Feb to 19 Apr 2013	0.30 m	http://vgin.maps.arcgis.com/home/index.html
	2012 USGS Topographic Lidar: Northeast Atlantic Coast Post-Hurricane Sandy	5-29 Nov 2012	1 m	https://coast.noaa.gov/digitalcoast
	2014 NOAA Ortho-rectified Mosaic of Hurricane Sandy Coastal Impact Area	01 Jan to 21 Apr 2014	0.35 m	https://coast.noaa.gov/digitalcoast
	2014 NOAA Post-Sandy Topobathymetric LiDAR: Void DEMs South Carolina to New York	Nov 2013 to Jun 2014	1 m	https://coast.noaa.gov/digitalcoast