MAPPING MARINE HABITATS FROM OUTER SPACE TO UNDERSEA

DOVE SATELLITES

Maps marine habitat across the Caribbean, guides optimal marine protected area design

GLOBAL AIRBORNE OBSERVATORY



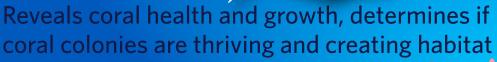
Reveals live coral and algal cover, identifies sites that can improve restoration outcomes

AERIAL DRONE



Reveals coral species, evaluates the impact of habitat protection and restoration efforts

SUB-SURFACE IMAGERY



WHO USES THE MAPS?



Conservation scientists and practitioners



Marine protected area and fishery managers

International governments

Hotel and tourism associations

Educational

institutions



Catalyze conservation action and education by making vital habitat data readily available



Combining layers of information ensures that precise, detailed maps are generated and allows each of these methods to validate the data collected by the others.



Using revolutionary remote sensing technologies to advance large-scale coral reef and coastal conservation



WHAT DO THE MAPS ALLOW US TO DO?

Promote effective marine spatial planning and management of protected areas

Quantify the economic and protection value of marine habitats to support policymaking

Determine sites for nature-based, climate resilience solutions for coastal communities

Identify areas for urgent coral restoration, including sites that improve survival rates





MAPPING MARINE HABITATS FRÔM OUTER SPACE TO UNDERSEA

DOVE SATELLITES

Constellation of satellites capturing images across ~60 million mi² of the Earth's surface per day

GLOBAL AIRBORNE OBSERVATORY

Aircraft with a high-tech spectrometer Giao Global Airborne Observatory capturing images across an area the size of ~135,000 football fields per day

AERIAL DRONES

Vehicles that fly over the ocean capturing images across an area the size of ~700 football fields per day

SUB-SURFACE IMAGERY

Divers and underwater drones capturing images across an area the size of <1 football field per day

Creates maps of coral reefs and other habitats across the Caribbean at a pixel size of 150 ft² **Guides optimal marine protected area design** and management planning

- Creates 3D habitat models at a pixel size of .1 10 ft² and reveals % live coral and algal cover Identifies sites that can improve survival rates a a a of outplanted corals
- Creates 3D habitat models at a **pixel size of 1 in²** and reveals individual coral species type **Evaluates the impact of protection and restoration** - An efforts on coral cover and reef complexity
 - Creates 3D habitat models at a pixel size of .01 in² and reveals coral health and growth rates **Determines if individual coral colonies are thriving** and creating habitat for marine life





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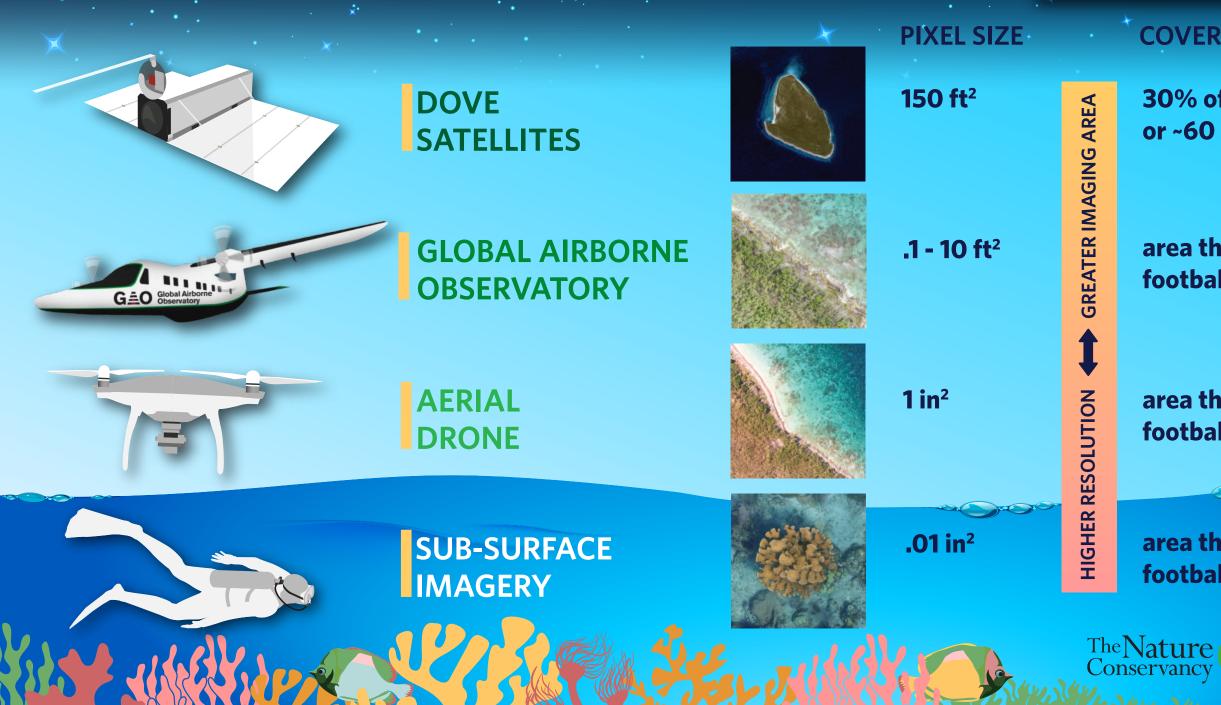
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COVERAGE

30% of the Earth's surface, or ~60 million mi² per day

area the size of ~135,000 football fields per day

area the size of ~700 football fields per day

area the size of <1 football field per day



