



# Urban Shorelines

## Upland Plantings

Dianna Padilla urbanshorelines@gmail.com

Thomas Grothues  
Christina Kaunzinger  
Vincent Lee

Steven Handel  
Sulan Kolatan  
Philip Parker

### The Top of the Shoreline

*Urban Shorelines* works to redesign coastal infrastructure to better protect cities, support the blue economy, and improve social and ecological resilience. In addition to work on the submarine seawall, progress at the top of the wall is needed to maximize ecological function and social interplay with our urban marine edges.

### Progress to Date

We have identified a large selection of coastal plant species tolerant of salt spray and dry soils. These have the best chance of surviving the stresses near the urban shoreline and providing ecological and social benefits to our urban residents. We have confirmed availability from native plant sources and are now starting to test their performance in pragmatic small spaces above our reengineered seawall.



Beach plum



Bayberry

The plants chosen also have high-value as food for birdlife and pollinators, as well as perching space for urban birds. We have chosen plants with lovely flowers or fruit to maximize attraction to nearby residents.

### Next Steps for the Project

We have designed field experiments to monitor performance and survival in small urban shoreline planting boxes. We will be assisted in planting, monitoring, and data collecting by students from local underserved communities to introduce them to environmental careers and coastal STEM education topics.

The results of these studies will, first, refine the selection of plants most valuable to use as part of the new urban edge redesign. These plants will be habitat for coastal insects and birds. Second, these have beauty to attract urban residents to the shore and encourage them to learn more about the living shoreline.



Finally, the results will be used in a manual of best practices that can be used broadly by other cities that adopt our new system of shoreline protection and improvement. Together with the submarine new technologies, we can maximize protection and ecological services along many shorelines for our urban populations.