

Figure 1-1: Site Location and Sampling Areas

Vieques Island Biota Sampling Project - June 2005

1999 NOAA true color (2.4m) orthophotography and NAVFAC boundaries used as basemap. Crab sampling locations generalized to single location for data presentation. All data Puerto Rico State Plane Coordinate System, survey Feet, NAD 1983.

See Figures 2-1 to 2-14 for detailed, individual Land Crab and composite Fiddler Crab sampling locations





Figure 2-1 Area 1 - Downgradient from SWMU 7

Vieques Crab Sampling - June 2005

1999 NAVFAC true color (0.5'-2') or 2002 IKONOS (1m) orthophotography used as basemap. Crab sampling locations acquired using GPS. All data Puerto Rico State Plane Coordinate System, survey Feet, NAD 1983.



Land Crab Location



Fiddler Crab Location



Land Crab Foraging Area (100m)



Fiddler Crab Sampling Area (30m)





Figure 2-2 Area 2 - Downgradient from AOCs J and R

Vieques Crab Sampling - June 2005

1999 NAVFAC true color (0.5'-2') or 2002 IKONOS (1m) orthophotography used as basemap. Crab sampling locations acquired using GPS. All data Puerto Rico State Plane Coordinate System, survey Feet, NAD 1983.



Land Crab Location



Fiddler Crab Location



Land Crab Foraging Area (100m)



Fiddler Crab Sampling Area (30m)





Figure 2-3 Area 3 - Laguna Kiani

Vieques Crab Sampling - June 2005

1999 NAVFAC true color (0.5'-2') or 2002 IKONOS (1m) orthophotography used as basemap. Crab sampling locations acquired using GPS. All data Puerto Rico State Plane Coordinate System, survey Feet, NAD 1983.



Land Crab Location



Fiddler Crab Location



Land Crab Foraging Area (100m)



Fiddler Crab Sampling Area (30m)



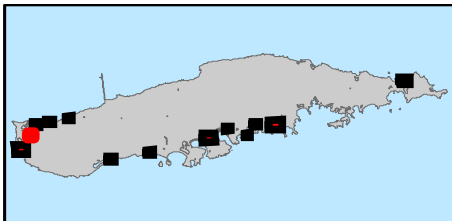


Figure 2-4 Area 4 - Laguna Kiani South

Vieques Crab Sampling - June 2005

1999 NAVFAC true color (0.5'-2') or 2002 IKONOS (1m) orthophotography used as basemap. Crab sampling locations acquired using GPS. All data Puerto Rico State Plane Coordinate System, survey Feet, NAD 1983.



Land Crab Location



Fiddler Crab Location



Land Crab Foraging Area (100m)



Fiddler Crab Sampling Area (30m)



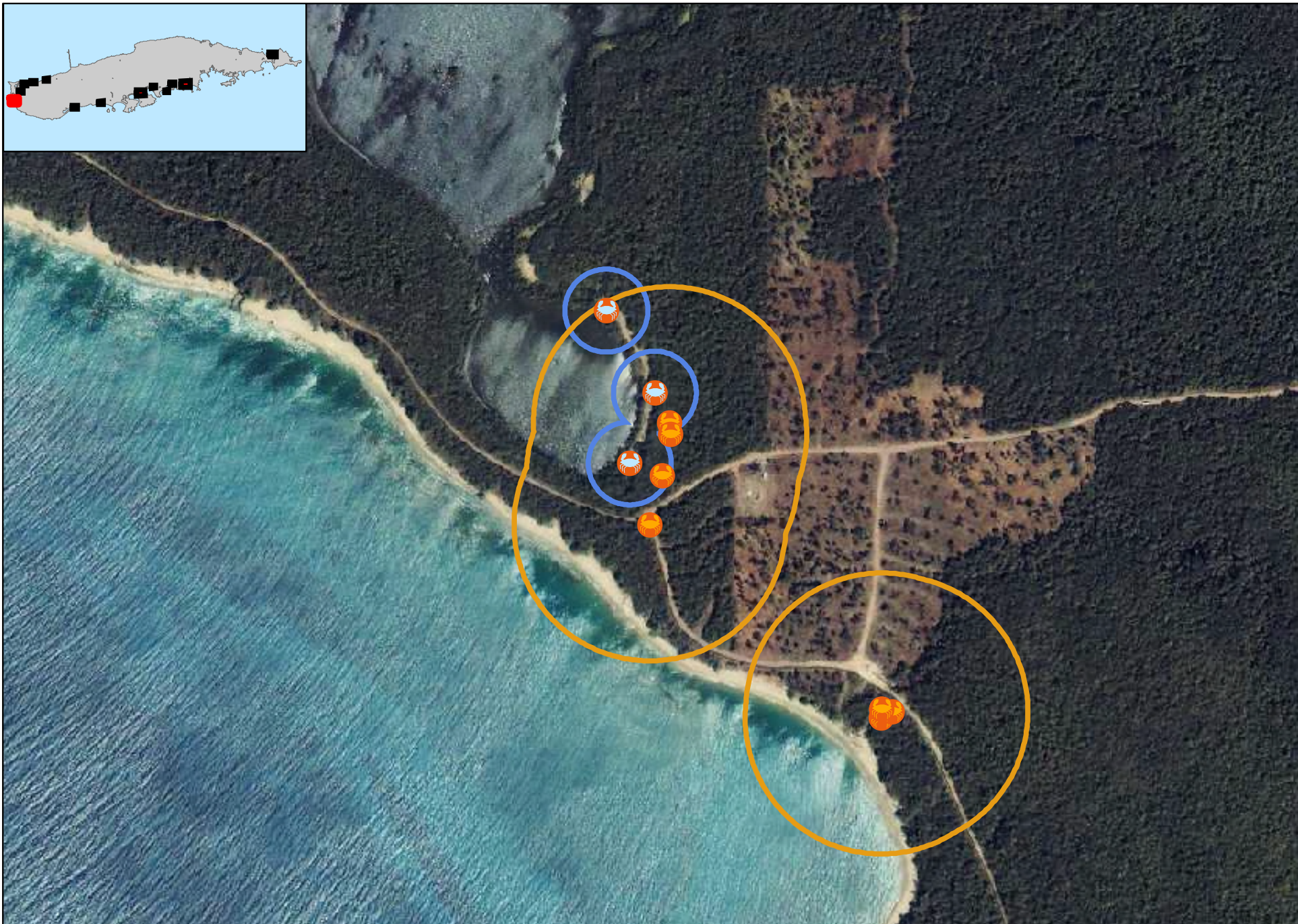


Figure 2-5 Area 5 - Boca Quebrada

Vieques Crab Sampling - June 2005

1999 NAVFAC true color (0.5'-2') or 2002 IKONOS (1m) orthophotography used as basemap. Crab sampling locations acquired using GPS. All data Puerto Rico State Plane Coordinate System, survey Feet, NAD 1983.



Land Crab Location



Fiddler Crab Location



Land Crab Foraging Area (100m)



Fiddler Crab Sampling Area (30m)



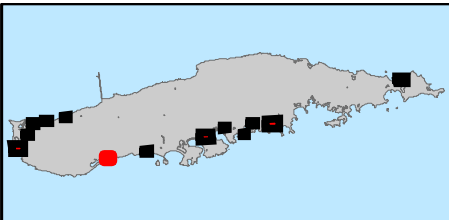


Figure 2-6 Area 6 - Laguna Playa Grande

Vieques Crab Sampling - June 2005

1999 NAVFAC true color (0.5'-2') or 2002 IKONOS (1m) orthophotography used as basemap. Crab sampling locations acquired using GPS. All data Puerto Rico State Plane Coordinate System, survey Feet, NAD 1983.



Land Crab Location



Fiddler Crab Location



Land Crab Foraging Area (100m)



Fiddler Crab Sampling Area (30m)



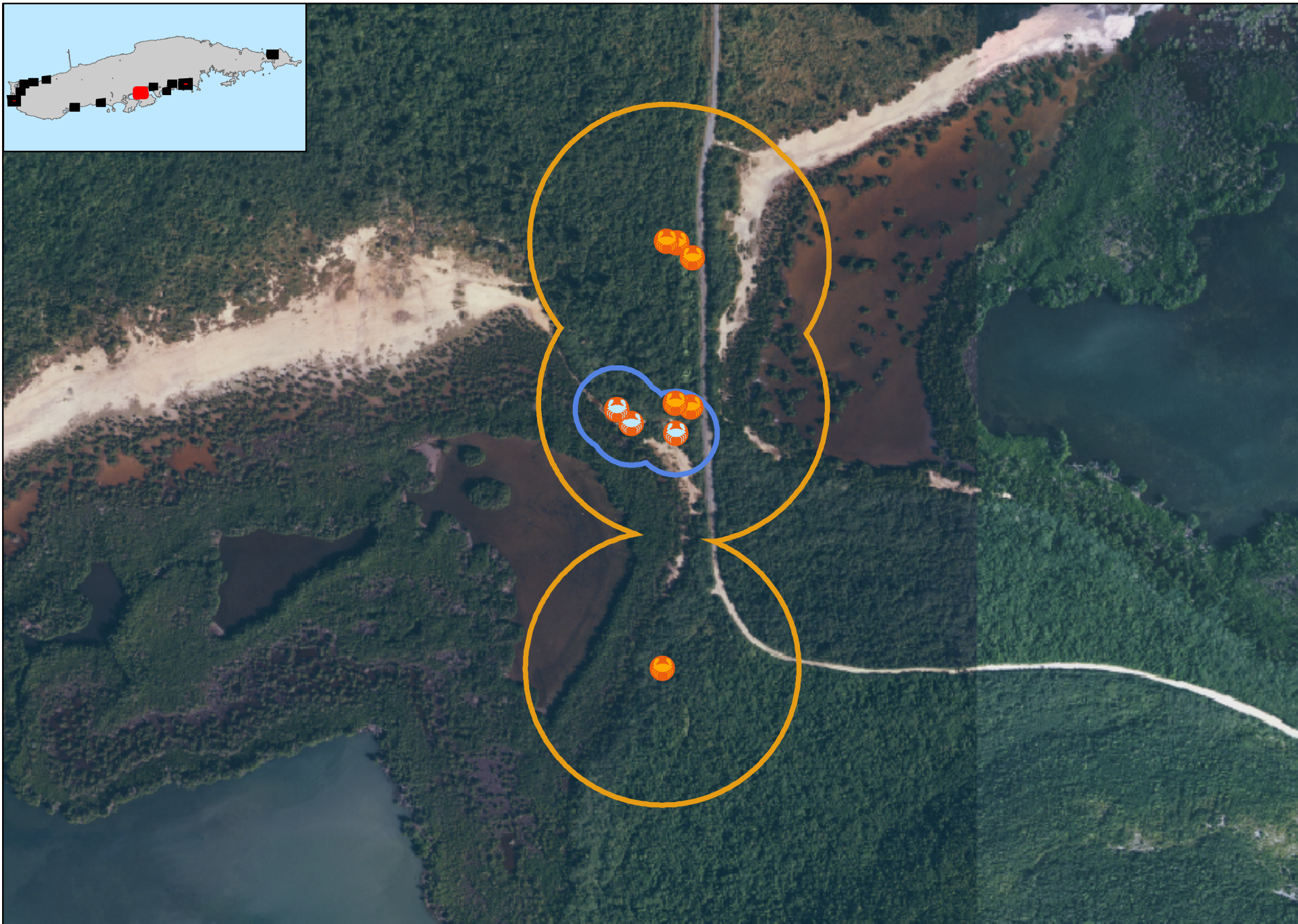


Figure 2-7 Area 7 - Mosquito Bay

Vieques Crab Sampling - June 2005

1999 NAVFAC true color (0.5'-2') or 2002 IKONOS (1m) orthophotography used as basemap. Crab sampling locations acquired using GPS. All data Puerto Rico State Plane Coordinate System, survey Feet, NAD 1983.



Land Crab Location



Fiddler Crab Location



Land Crab Foraging Area (100m)



Fiddler Crab Sampling Area (30m)



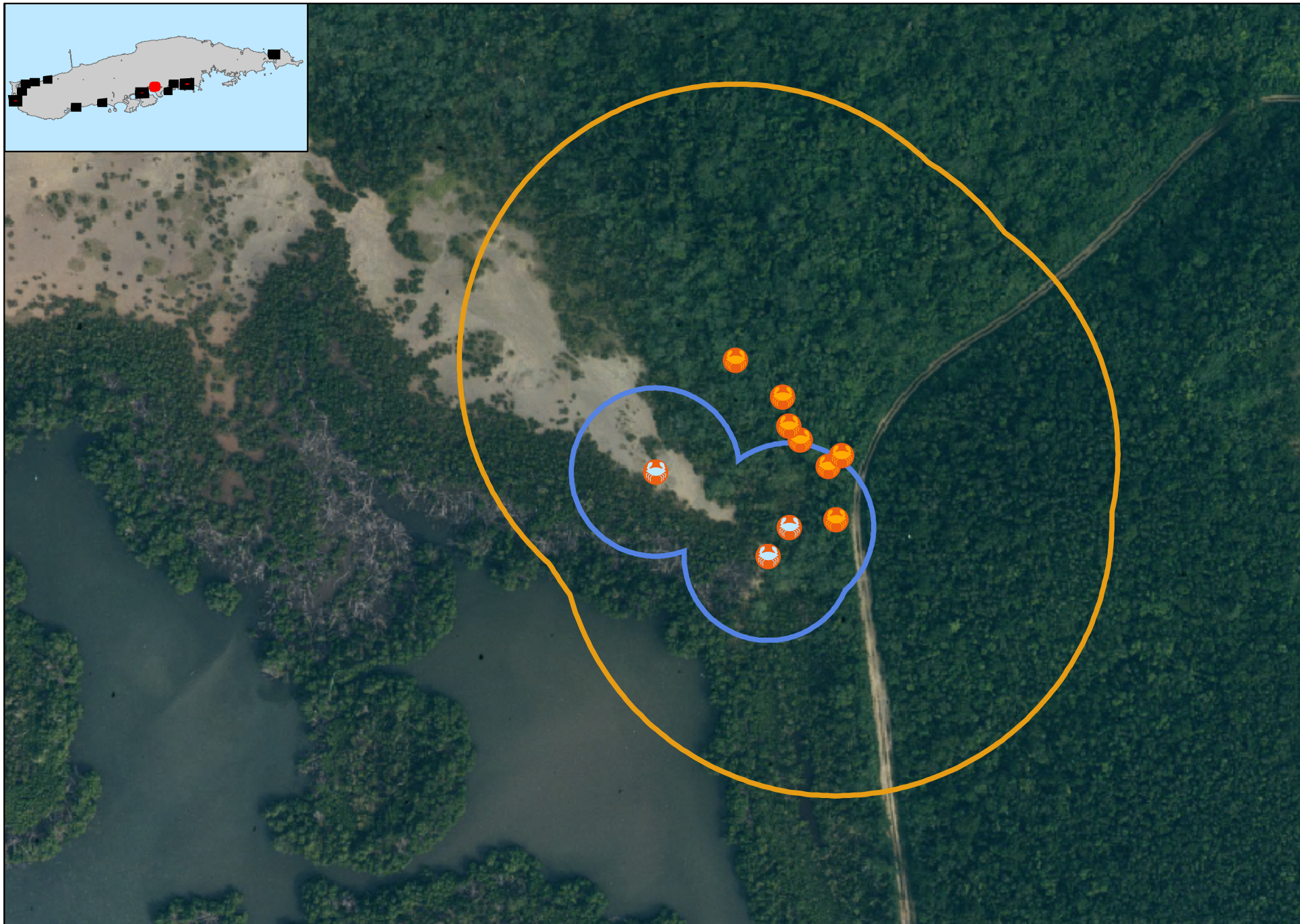


Figure 2-8 Area 8 - Puerto Ferro

Vieques Crab Sampling - June 2005

1999 NAVFAC true color (0.5'-2') or 2002 IKONOS (1m) orthophotography used as basemap. Crab sampling locations acquired using GPS. All data Puerto Rico State Plane Coordinate System, survey Feet, NAD 1983.



Land Crab Location



Fiddler Crab Location



Land Crab Foraging Area (100m)



Fiddler Crab Sampling Area (30m)



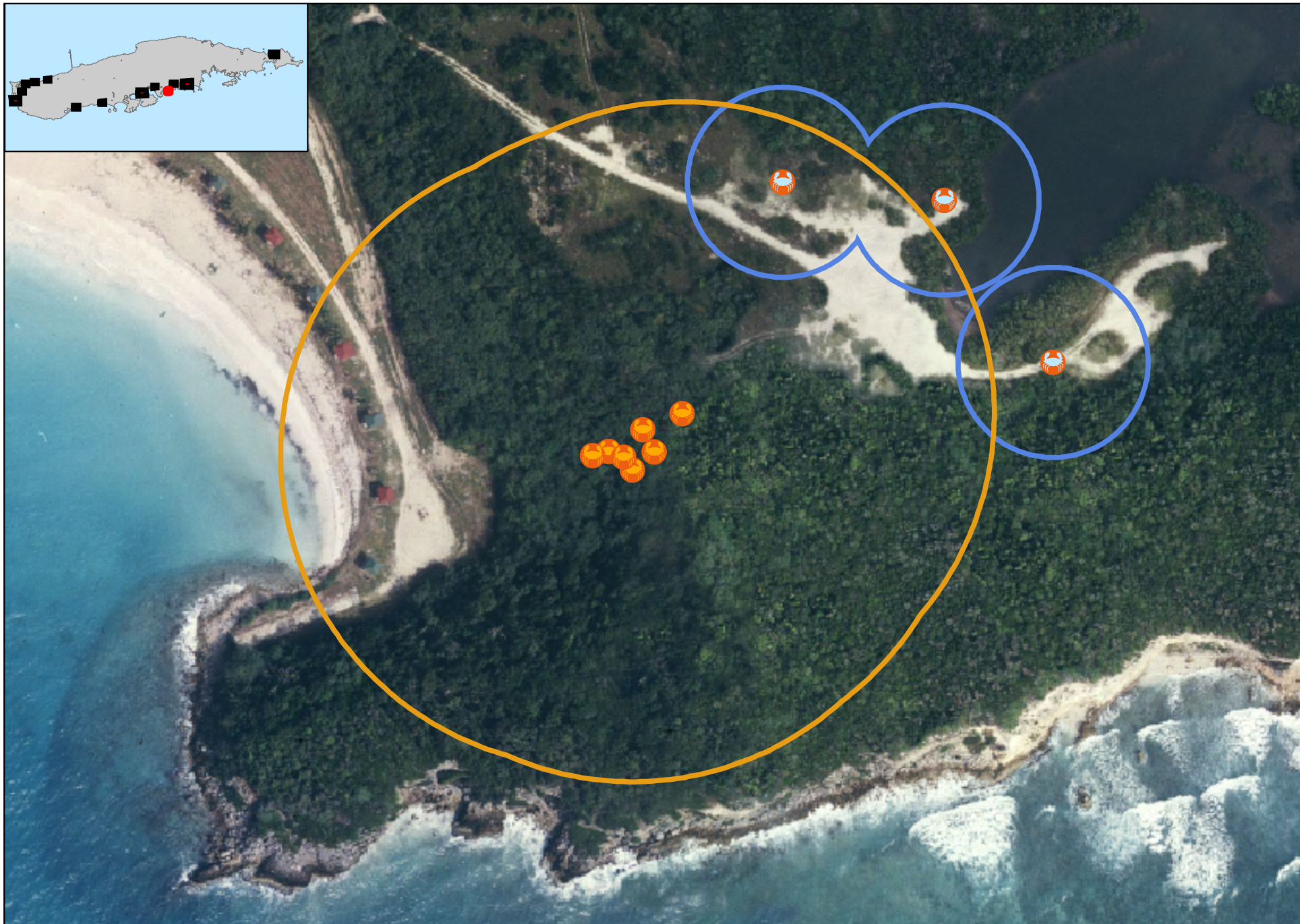


Figure 2-9 Area 9 - Red Beach

Vieques Crab Sampling - June 2005

1999 NAVFAC true color (0.5'-2') or 2002 IKONOS (1m) orthophotography used as basemap. Crab sampling locations acquired using GPS. All data Puerto Rico State Plane Coordinate System, survey Feet, NAD 1983.



Land Crab Location



Fiddler Crab Location



Land Crab Foraging Area (100m)



Fiddler Crab Sampling Area (30m)





Figure 2-10 Area 10 - Blue Beach

Vieques Crab Sampling - June 2005

1999 NAVFAC true color (0.5'-2') or 2002 IKONOS (1m) orthophotography used as basemap. Crab sampling locations acquired using GPS. All data Puerto Rico State Plane Coordinate System, survey Feet, NAD 1983.



Land Crab Location



Fiddler Crab Location



Land Crab Foraging Area (100m)



Fiddler Crab Sampling Area (30m)



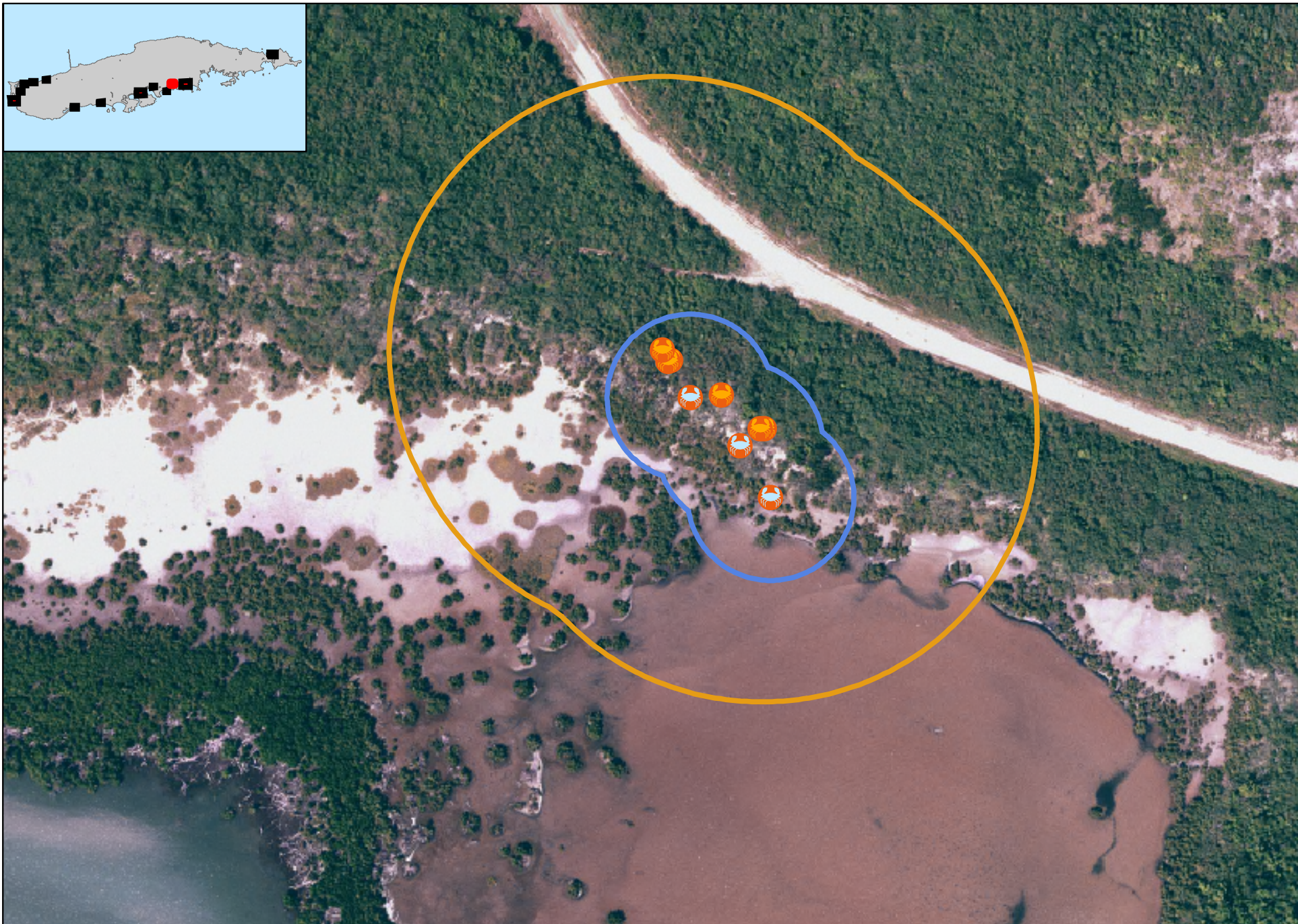


Figure 2-11 Area 11 - Bahía Tapon

Vieques Crab Sampling - June 2005

1999 NAVFAC true color (0.5'-2') or 2002 IKONOS (1m) orthophotography used as basemap. Crab sampling locations acquired using GPS. All data Puerto Rico State Plane Coordinate System, survey Feet, NAD 1983.



Land Crab Location



Fiddler Crab Location



Land Crab Foraging Area (100m)



Fiddler Crab Sampling Area (30m)





Figure 2-12 Area 12 - Live Impact Area

Vieques Crab Sampling - June 2005

1999 NAVFAC true color (0.5'-2') or 2002 IKONOS (1m) orthophotography used as basemap. Crab sampling locations acquired using GPS. All data Puerto Rico State Plane Coordinate System, survey Feet, NAD 1983.



Land Crab Location



Fiddler Crab Location



Land Crab Foraging Area (100m)



Fiddler Crab Sampling Area (30m)





Figure 2-13 Area 13 - Blue Horizon Reference

Vieques Crab Sampling - June 2005

1999 NAVFAC true color (0.5'-2') or 2002 IKONOS (1m) orthophotography used as basemap. Crab sampling locations acquired using GPS. All data Puerto Rico State Plane Coordinate System, survey Feet, NAD 1983.



Land Crab Location



Fiddler Crab Location



Land Crab Foraging Area (100m)



Fiddler Crab Sampling Area (30m)





Figure 2-14 Area 14 - Humacao Wildlife Reserve, Main Island Reference

Vieques Crab Sampling - June 2005

1999 NAVFAC true color (0.5'-2') or 2002 IKONOS (1m) orthophotography used as basemap. Crab sampling locations acquired using GPS. All data Puerto Rico State Plane Coordinate System, survey Feet, NAD 1983.



Land Crab Location



Fiddler Crab Location



Land Crab Foraging Area (100m)



Fiddler Crab Sampling Area (30m)



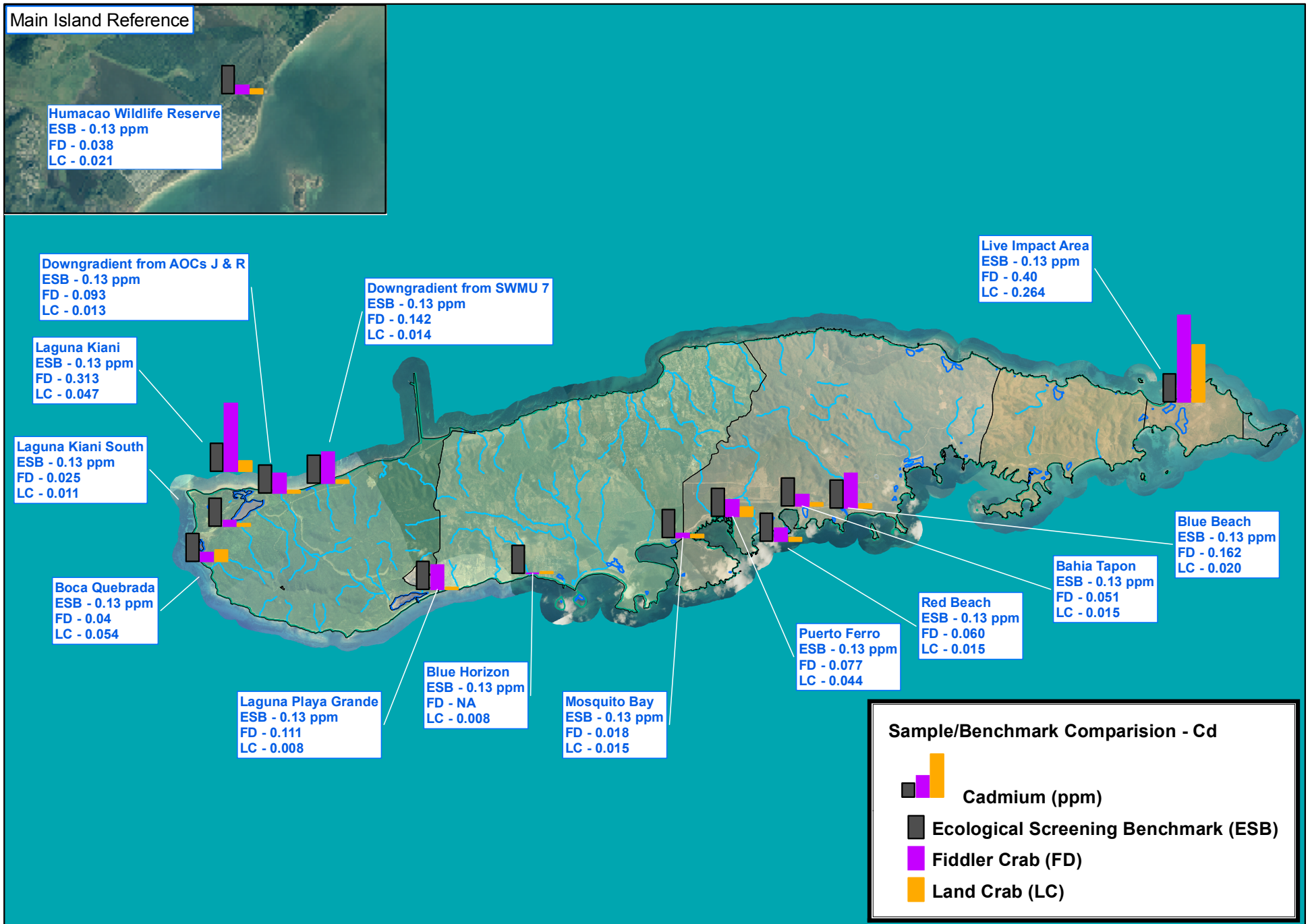


Figure 3-1: Vieques Island Land and Fiddler Crab Data - Cadmium

Vieques Island Biota Sampling Project - June 2005

1999 NOAA true color (2.4m) orthophotography and NAVFAC boundaries used as basemap. Crab sampling locations generalized to single location for data presentation. All data Puerto Rico State Plane Coordinate System, survey Feet, NAD 1983.

Mean concentration values were used to represent each sampling area. Means include non-detect values at the full detection limit. ESB for crustacean used for screening Cd, ESB for wildlife used for screening Pb & Se. Fiddler crab data not available for Blue Horizon. All chemical data concentrations in parts per million (ppm).



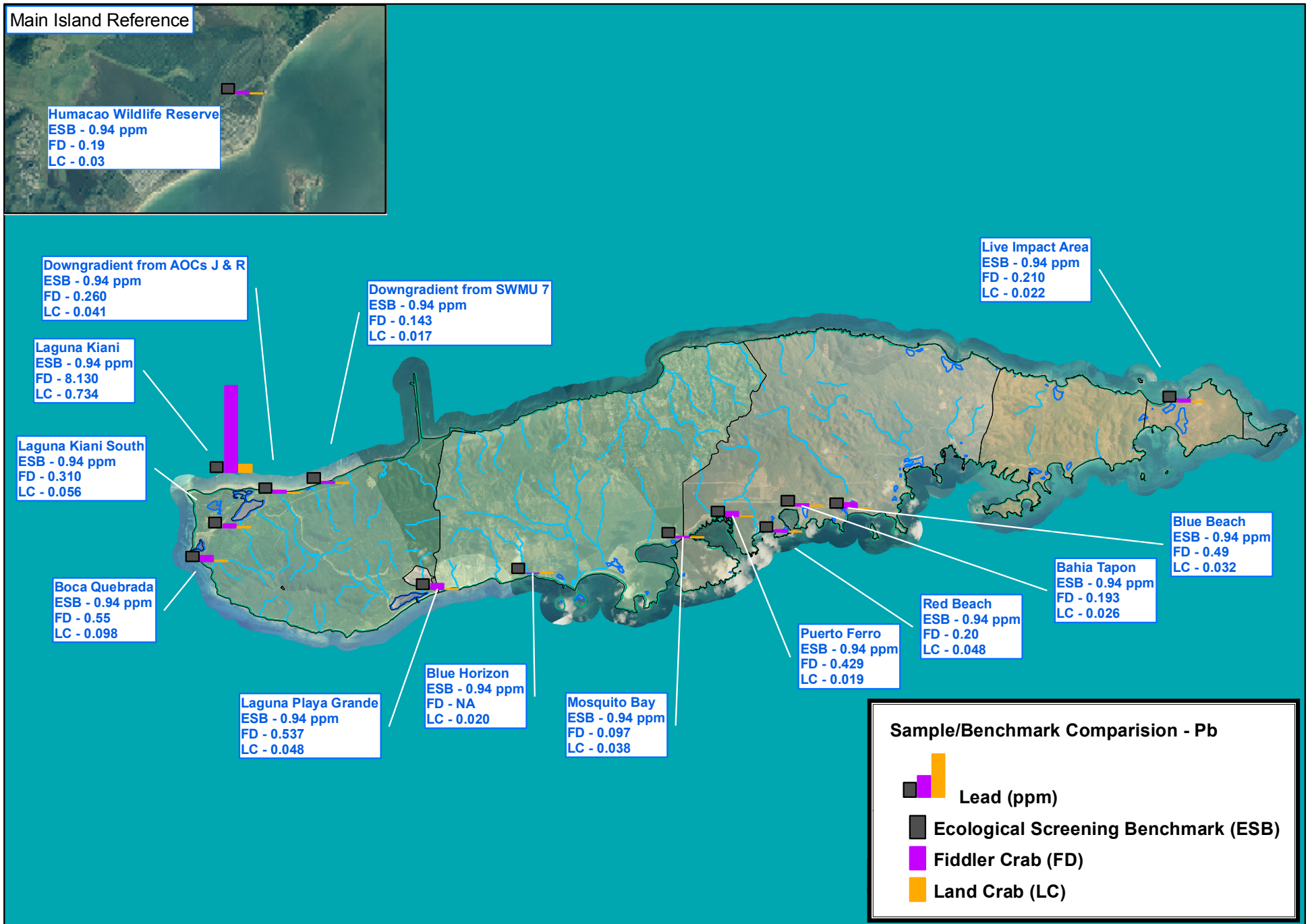


Figure 3-2: Vieques Island Land and Fiddler Crab Data - Lead

Vieques Island Biota Sampling Project - June 2005

1999 NOAA true color (2.4m) orthophotography and NAVFAC boundaries used as basemap. Crab sampling locations generalized to single location for data presentation. All data Puerto Rico State Plane Coordinate System, survey Feet, NAD 1983.

Mean concentration values were used to represent each sampling area. Means include non-detect values at the full detection limit. ESB for crustacean used for screening Cd, ESB for wildlife used for screening Pb & Se. Fiddler crab data not available for Blue Horizon. All chemical data concentrations in parts per million (ppm).



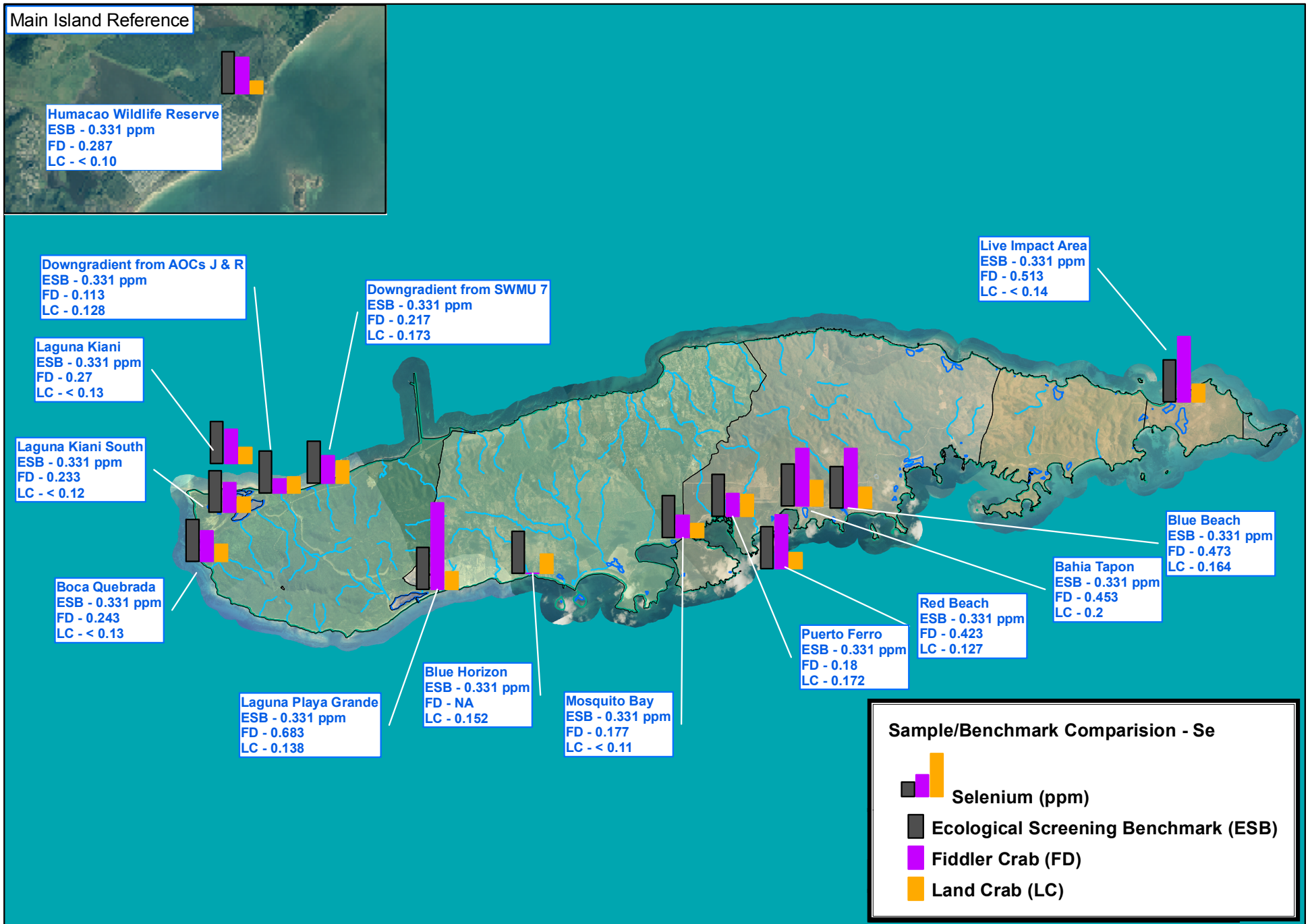


Figure 3-3: Vieques Island Land and Fiddler Crab Data - Selenium

Vieques Island Biota Sampling Project - June 2005

1999 NOAA true color (2.4m) orthophotography and NAVFAC boundaries used as basemap. Crab sampling locations generalized to single location for data presentation. All data Puerto Rico State Plane Coordinate System, survey Feet, NAD 1983.

Mean concentration values were used to represent each sampling area. Means include non-detect values at the full detection limit. ESB for crustacean used for screening Cd, ESB for wildlife used for screening Pb & Se. Fiddler crab data not available for Blue Horizon. All chemical data concentrations in parts per million (ppm).



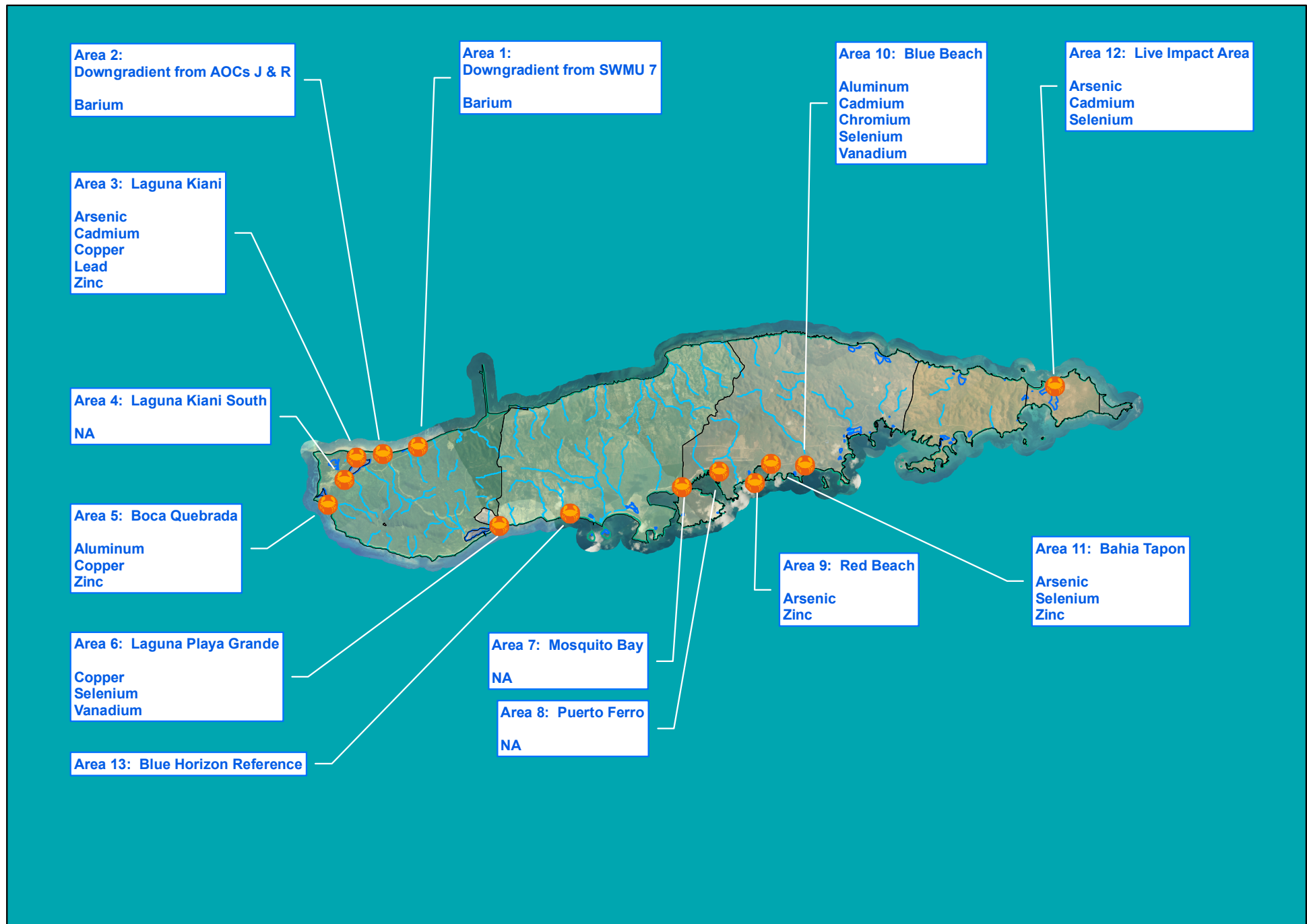


Figure 3-4: Mean Fiddler Crab Residues Significantly Greater than Reference and Exceeding ESBs

Vieques Island Biota Sampling Project - June 2005

1999 NOAA true color (2.4m) orthophotography and NAVFAC boundaries used as basemap. Crab sampling locations generalized to single location for data presentation. All data Puerto Rico State Plane Coordinate System, survey Feet, NAD 1983.

Analytes listed at sites where their mean values were greater than both reference and Ecological Screening Benchmark (ESB) values. Fiddler crab data not available for Blue Horizon. For a discussion please refer to Section 3.3.5 of the text and Table 3-8.

