



Gyvybės mokslų
centras



ALGAE – ECONOMY BASED ECOLOGICAL SERVICE OF AQUATIC ECOSYSTEMS
(LIFE17 ENV/LT/000407)

Sentinel satellite images for observation of hotspots of cyanobacteria blooms

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2021.10.12

Datasets analyzed

2018

20180601T083623_S3A_UTM300_chl.tif
20180604T085849_S3A_UTM300_chl.tif
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20181014T083632_S3A_UTM300_chl.tif
20181017T085858_S3A_UTM300_chl.tif
20181021T085514_S3A_UTM300_chl.tif

June

July

August

September

October

2019

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20190825T091010_S3A_CL_chl.tif
20190826T084359_S3A_CL_chl.tif
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20190924T093239_S3A_CL_chl.tif
20190927T091531_S3B_CL_chl.tif

June

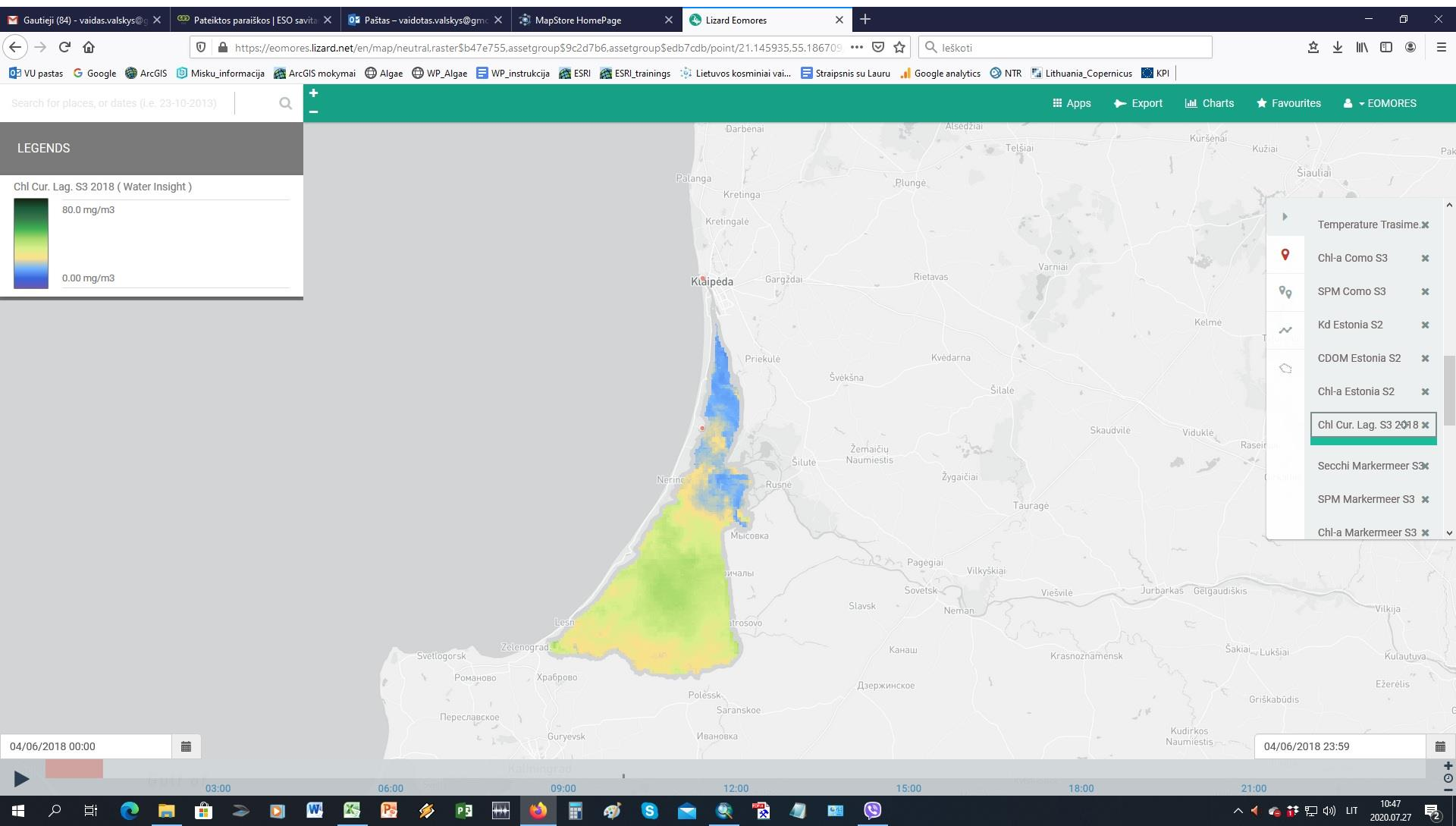
July

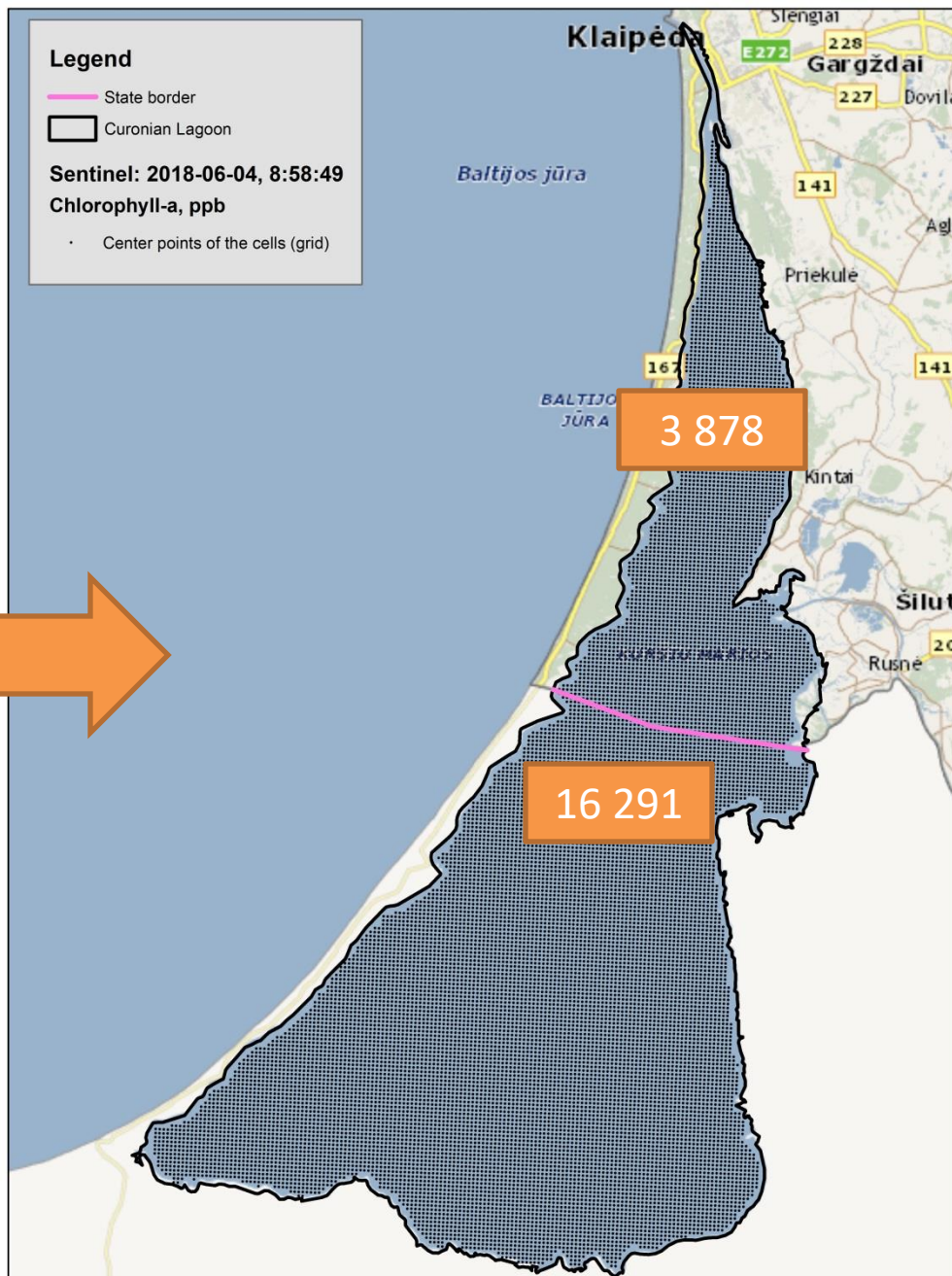
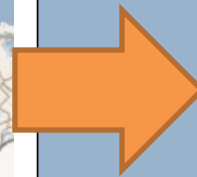
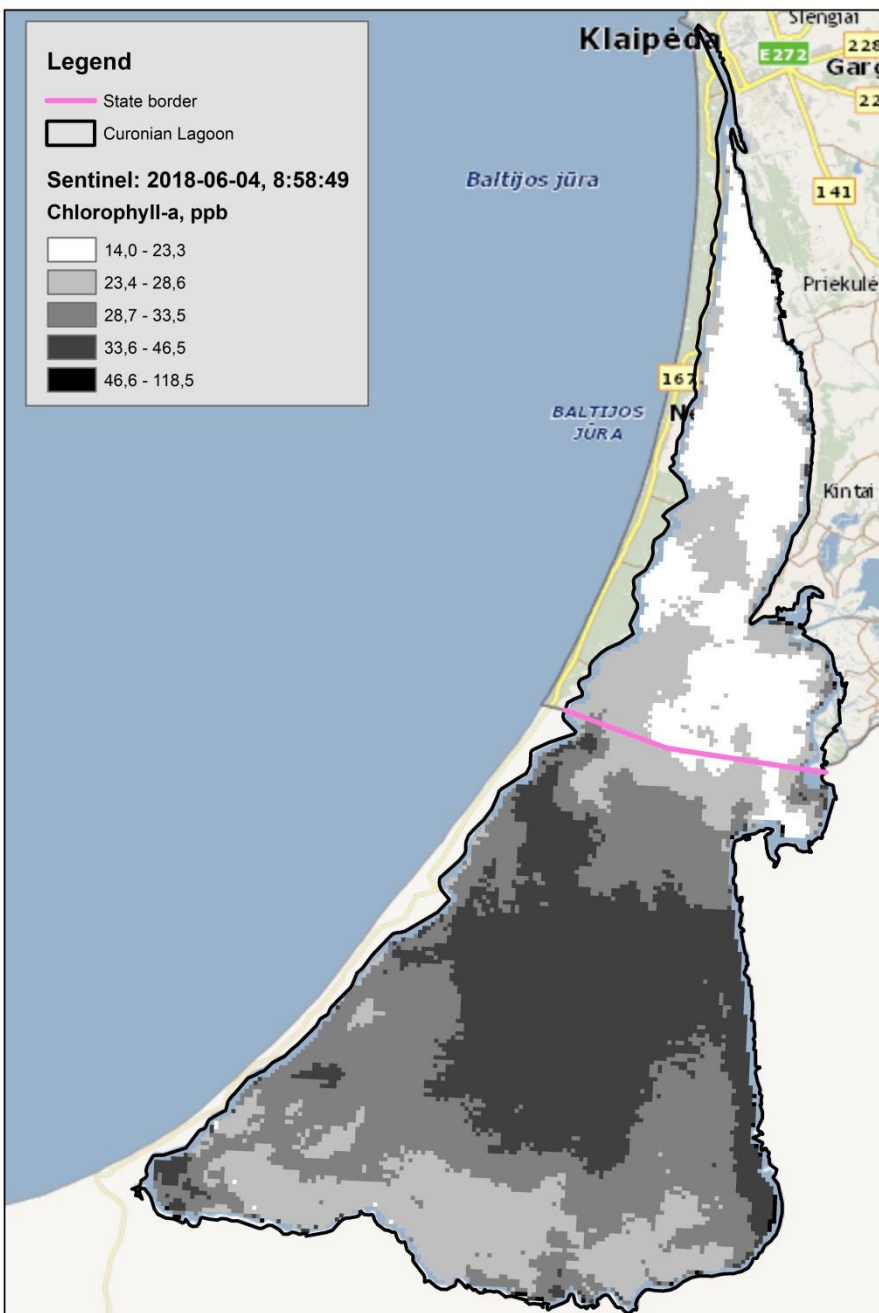
August

September

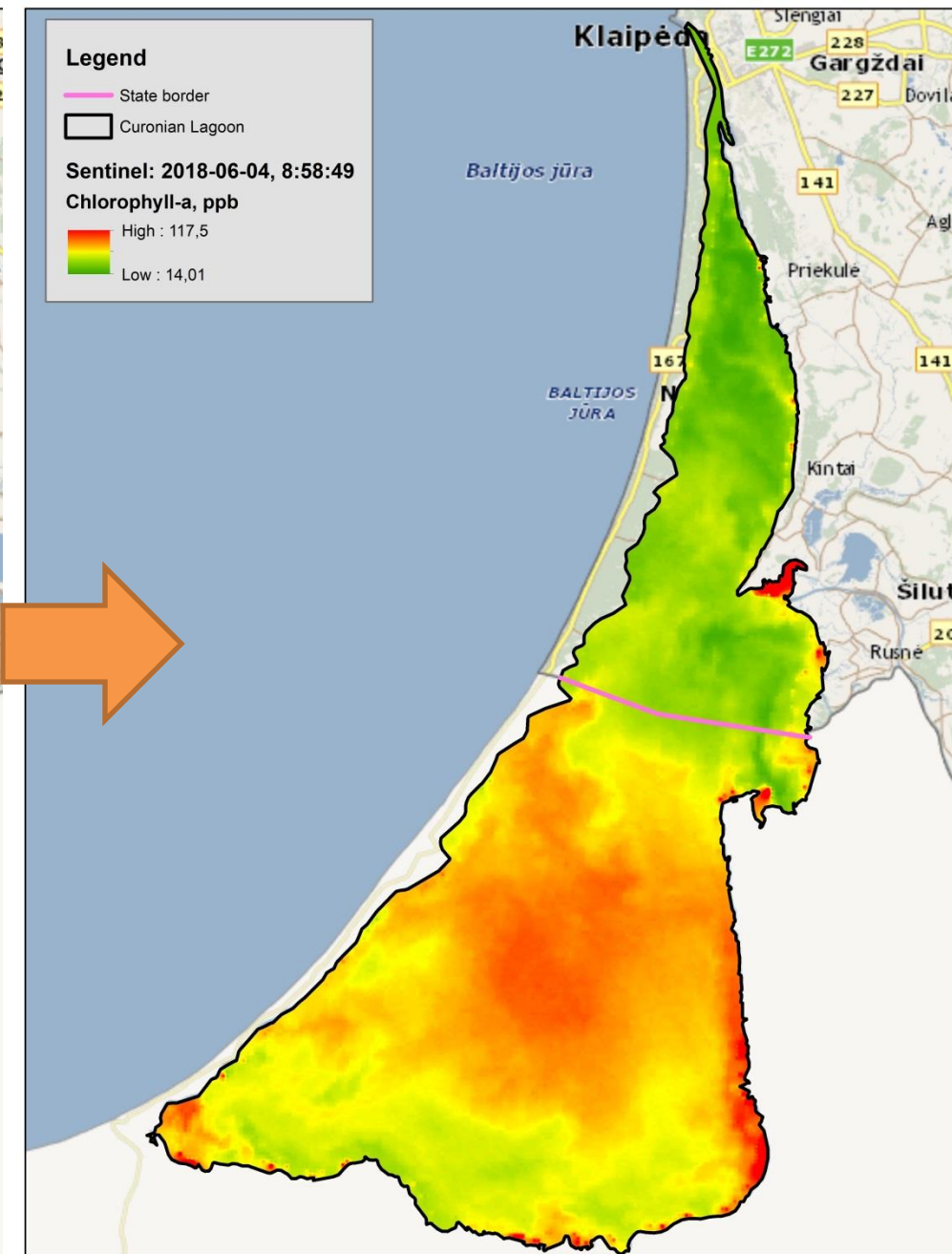
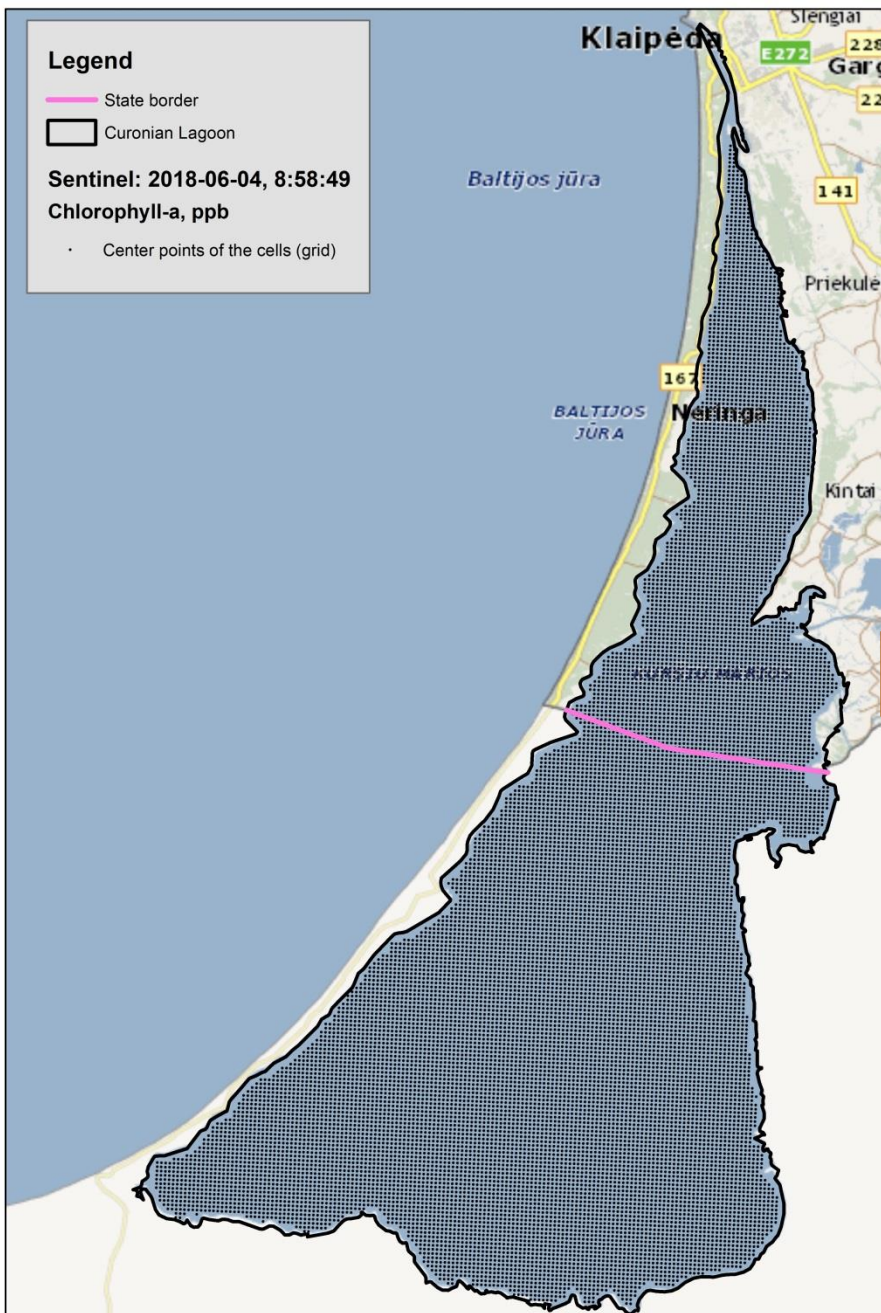
Analysis of satellite images

EOMORES LIZARD geoportal for SENTINEL data overview and download

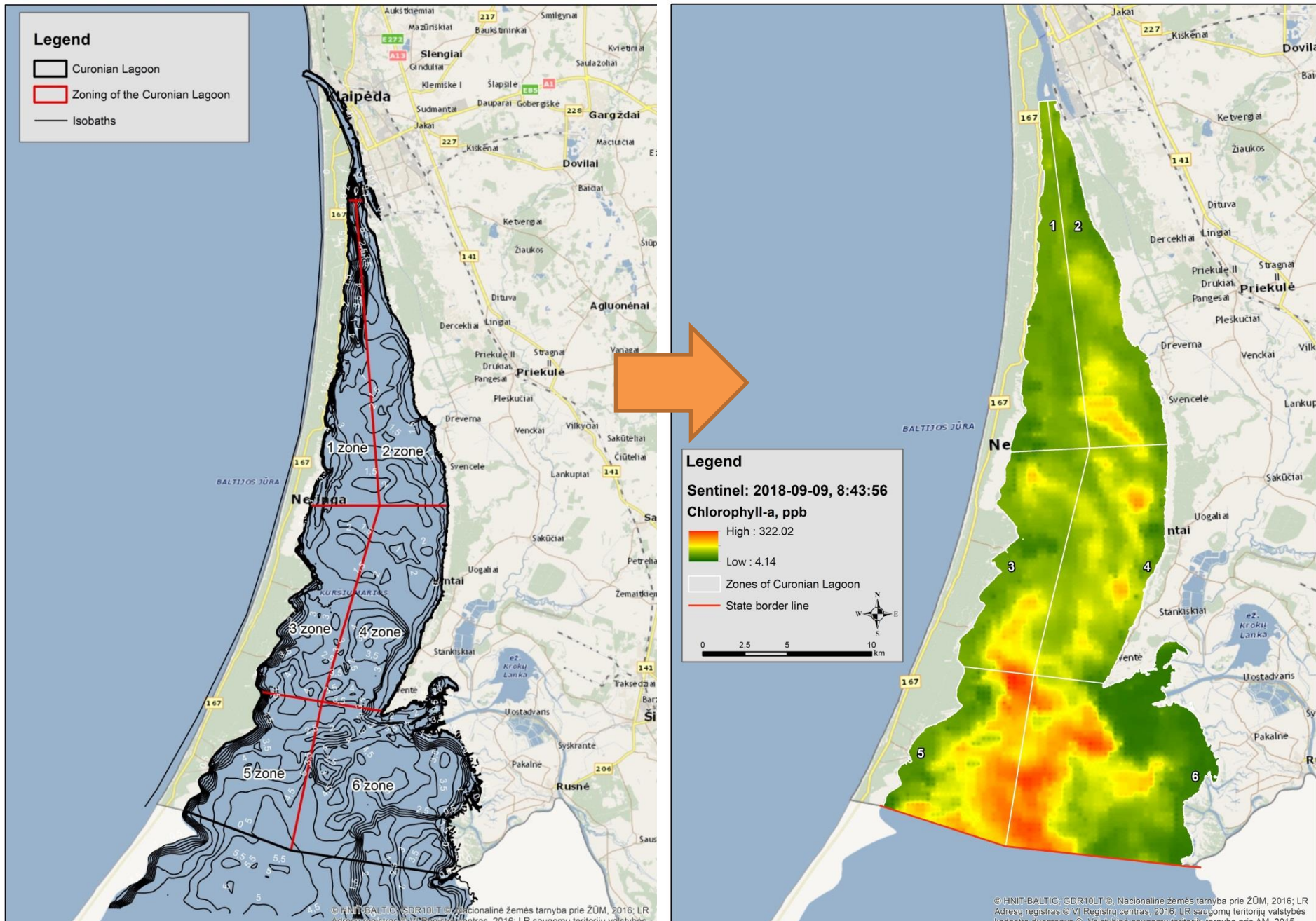




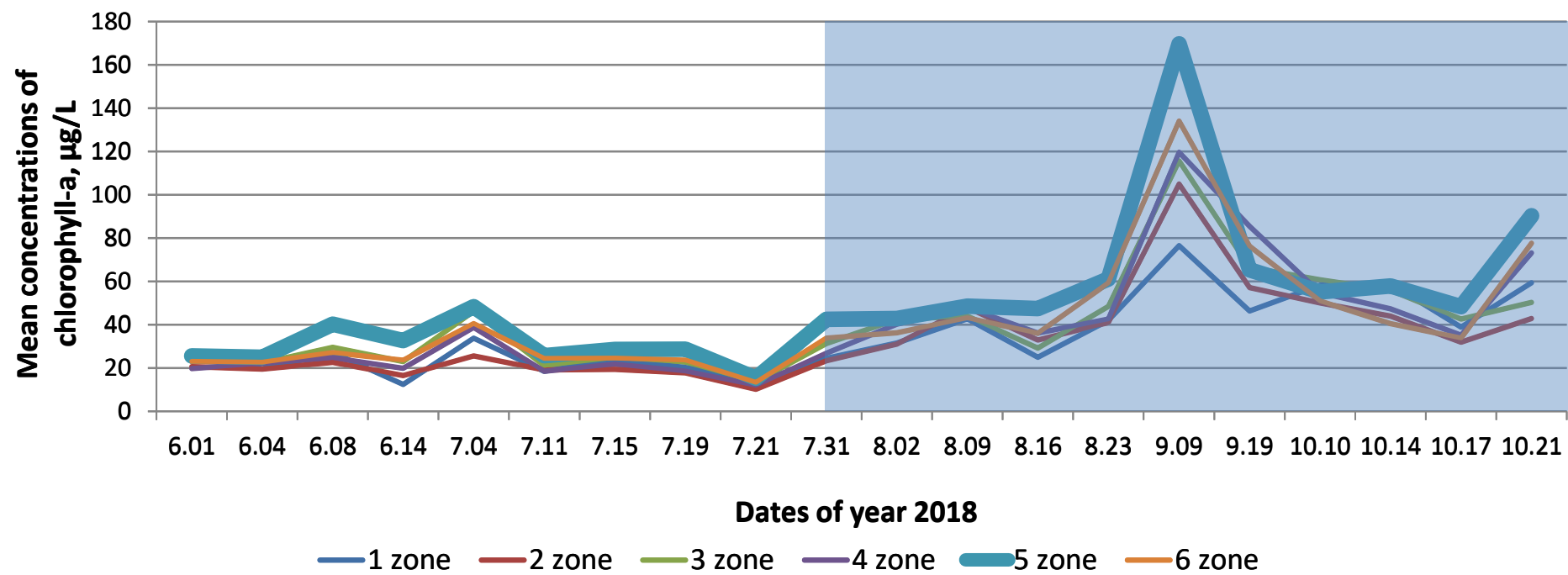
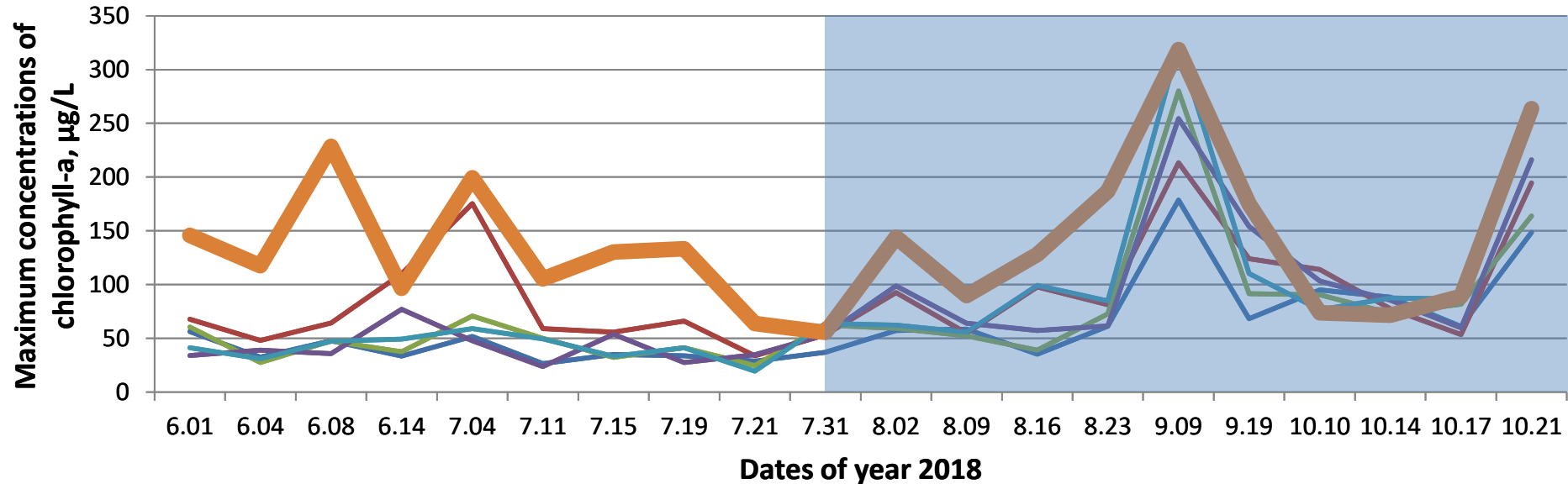
Downloaded data is imported in ArcMap 10.8.1 software and raster dataset converted to point layer. Each point contains Chlorophyll-a concentration in ppb in attribute table of the layer.

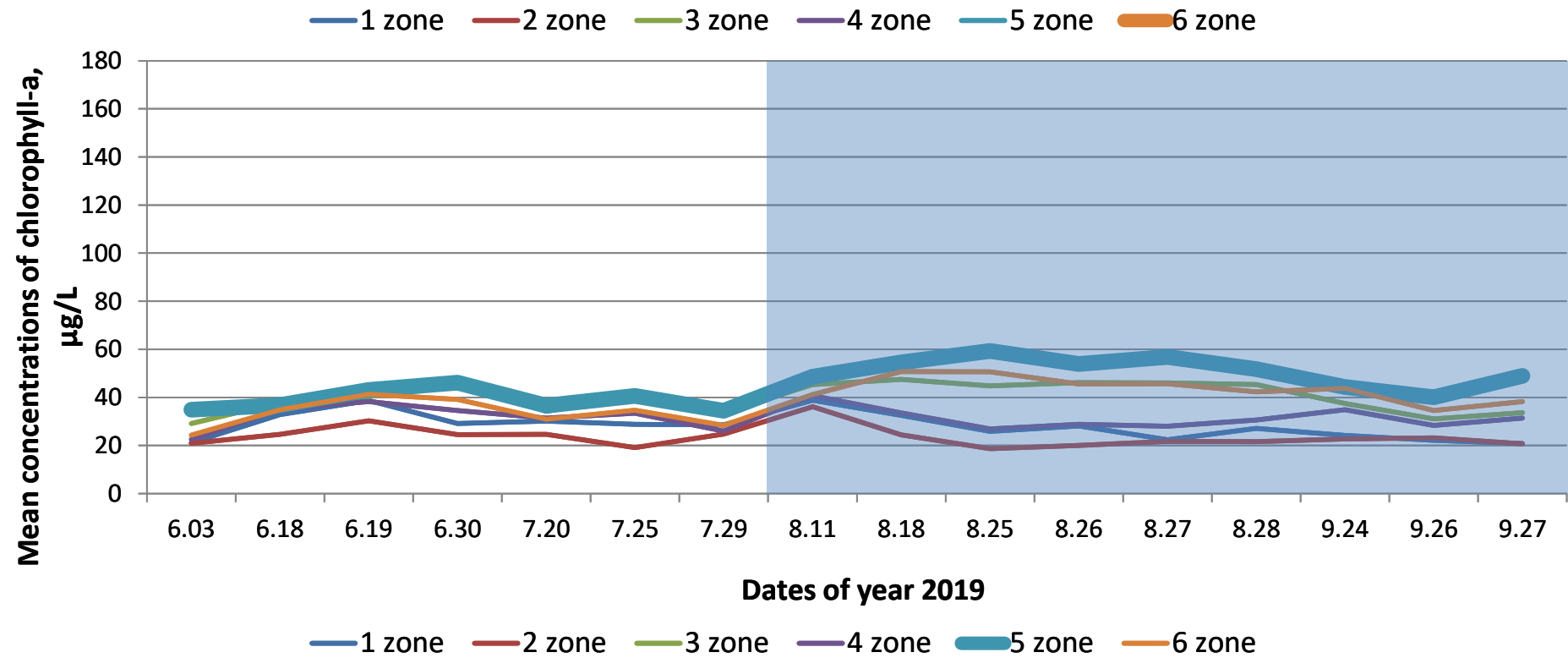
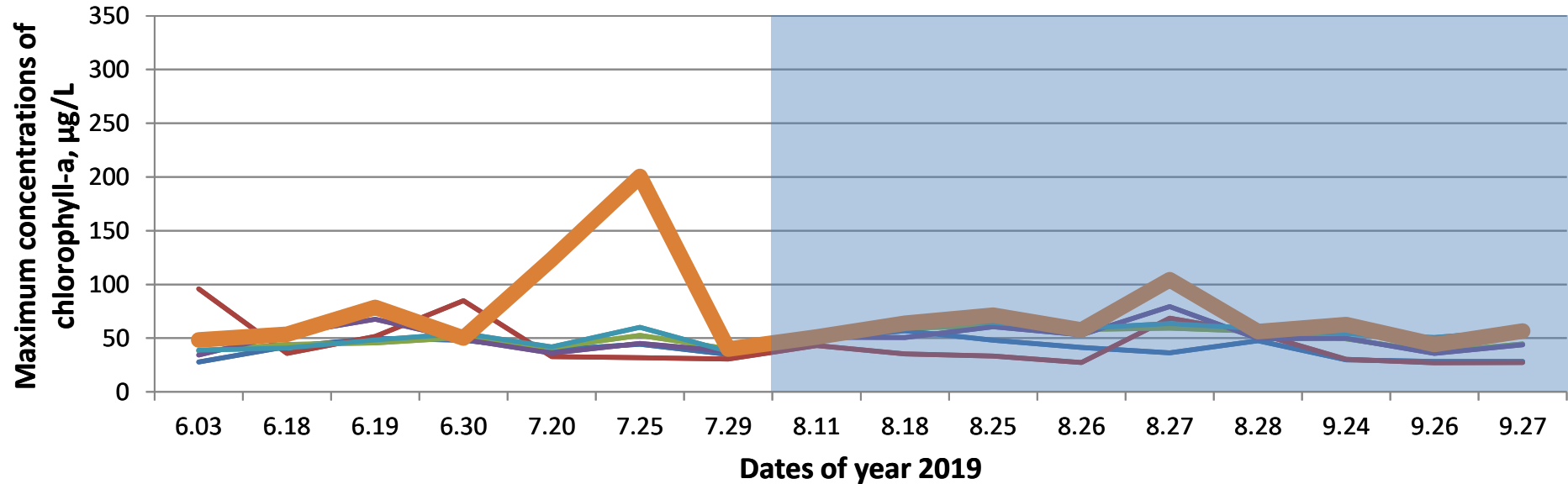


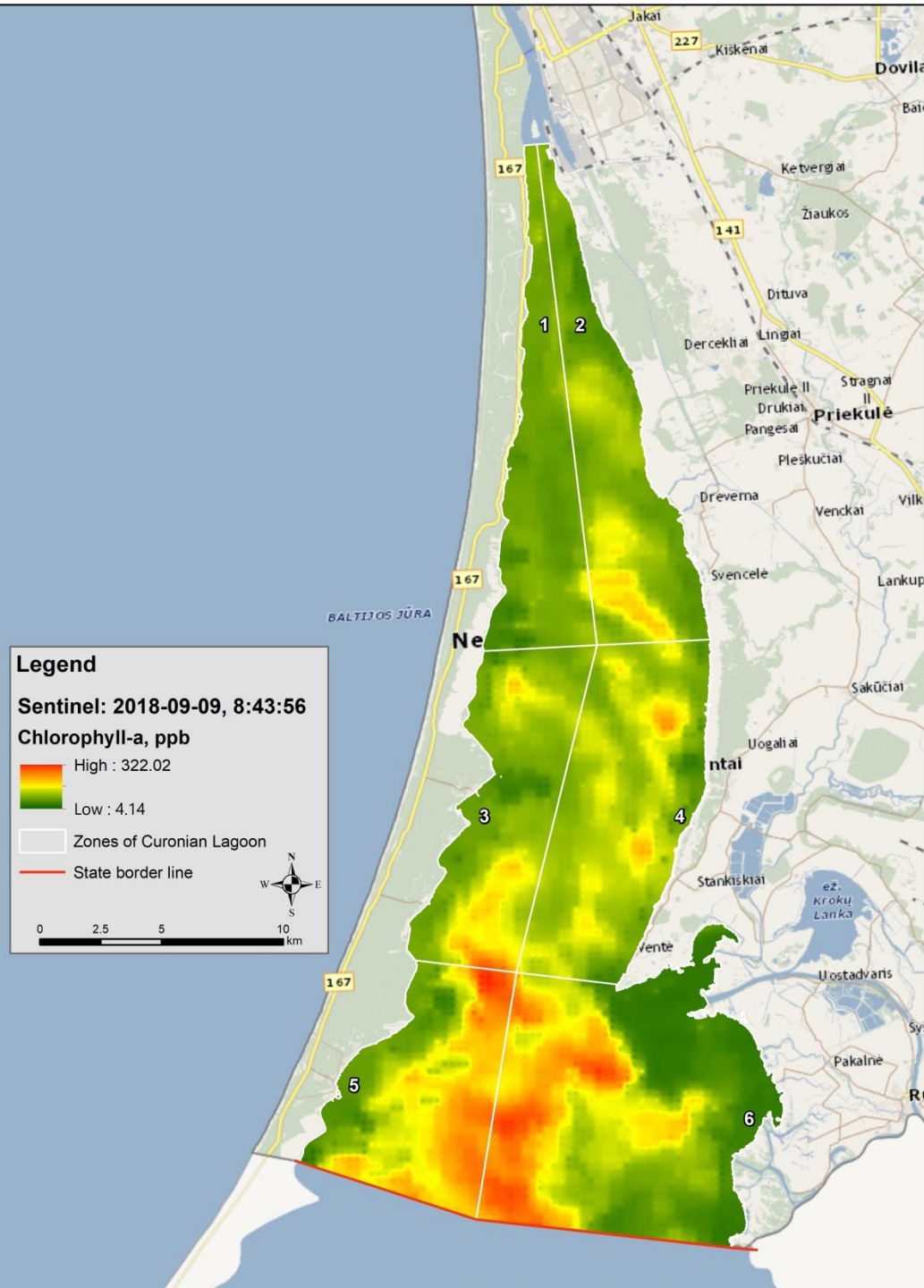
Point data layer is then used for IDW (Inverse Distance Weighting) interpolation. This method allows to highlight the hot-spots of the phenomenon that is analyzed.



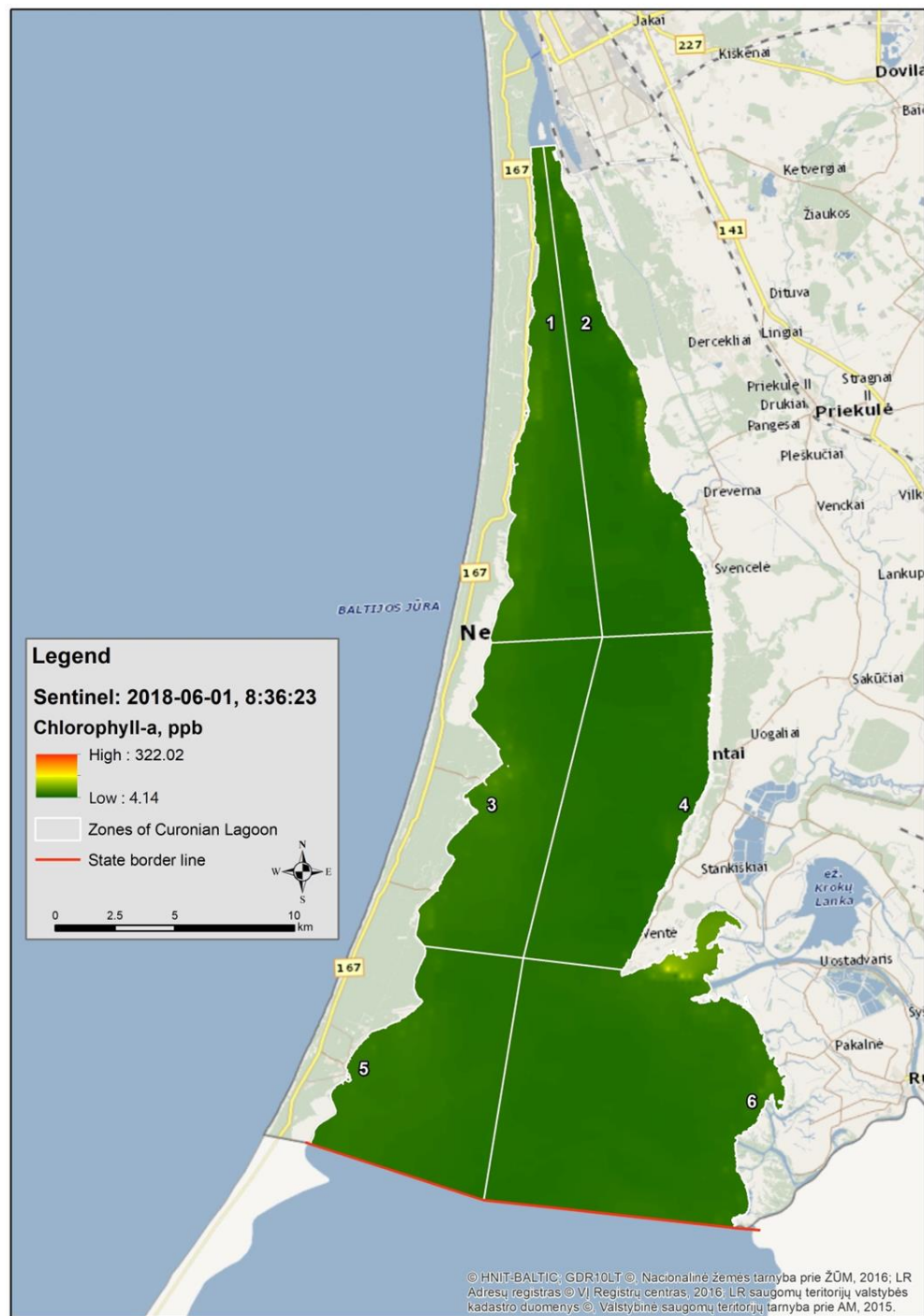
Data can also be separated by intersection on desired zoning. In this case dataset is separated into 6 zones of Curonian Lagoon in territory of Lithuania.

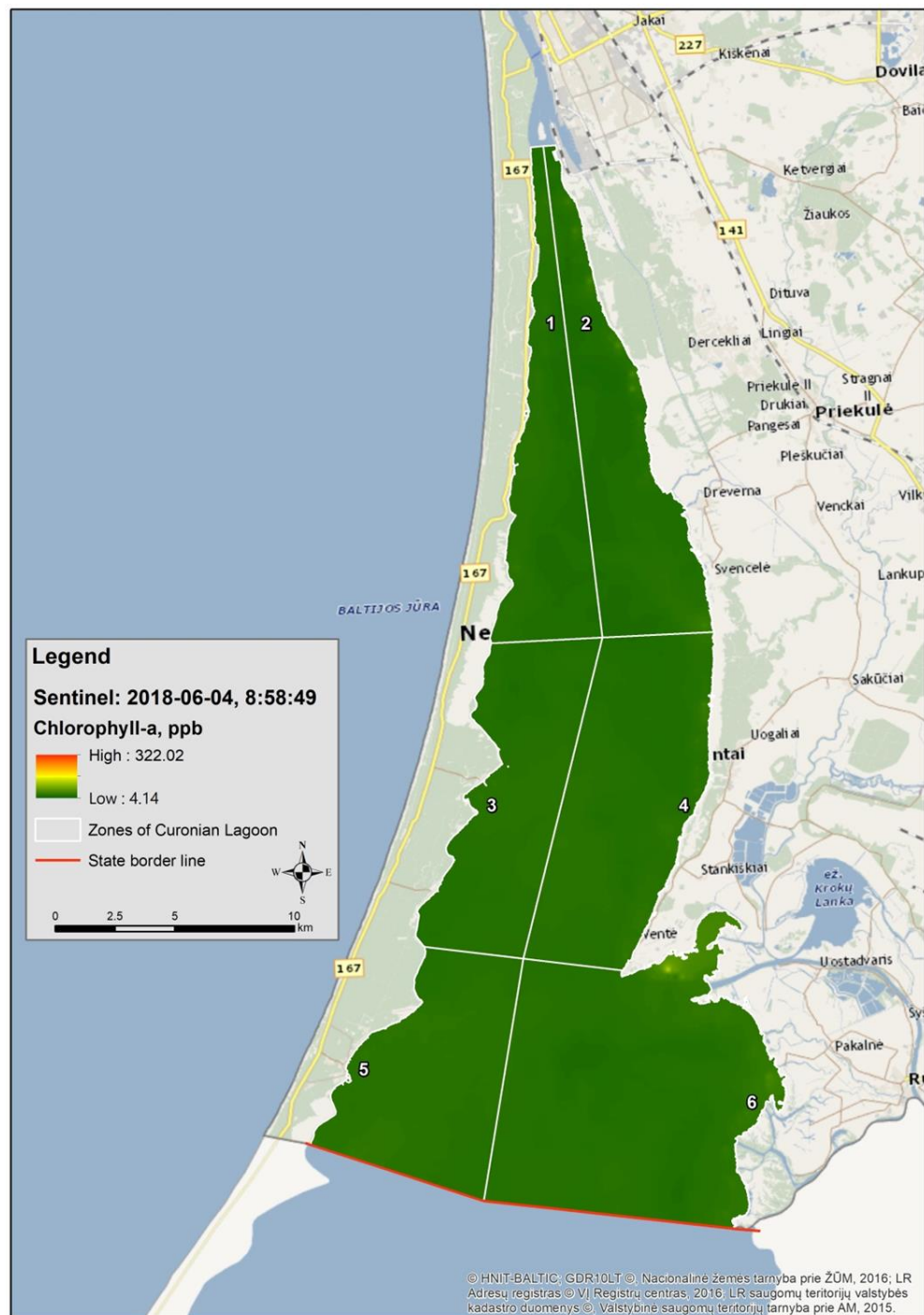


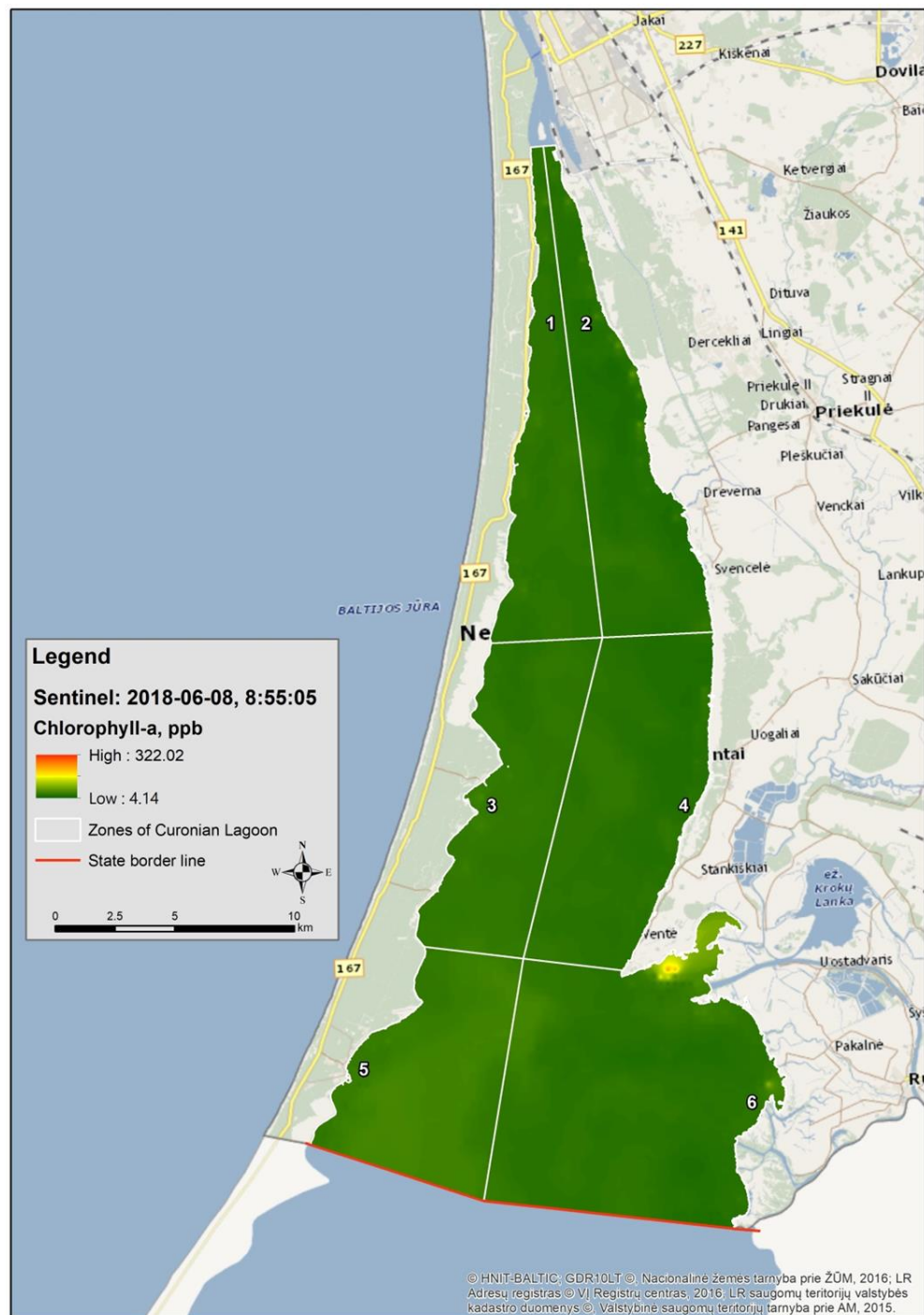


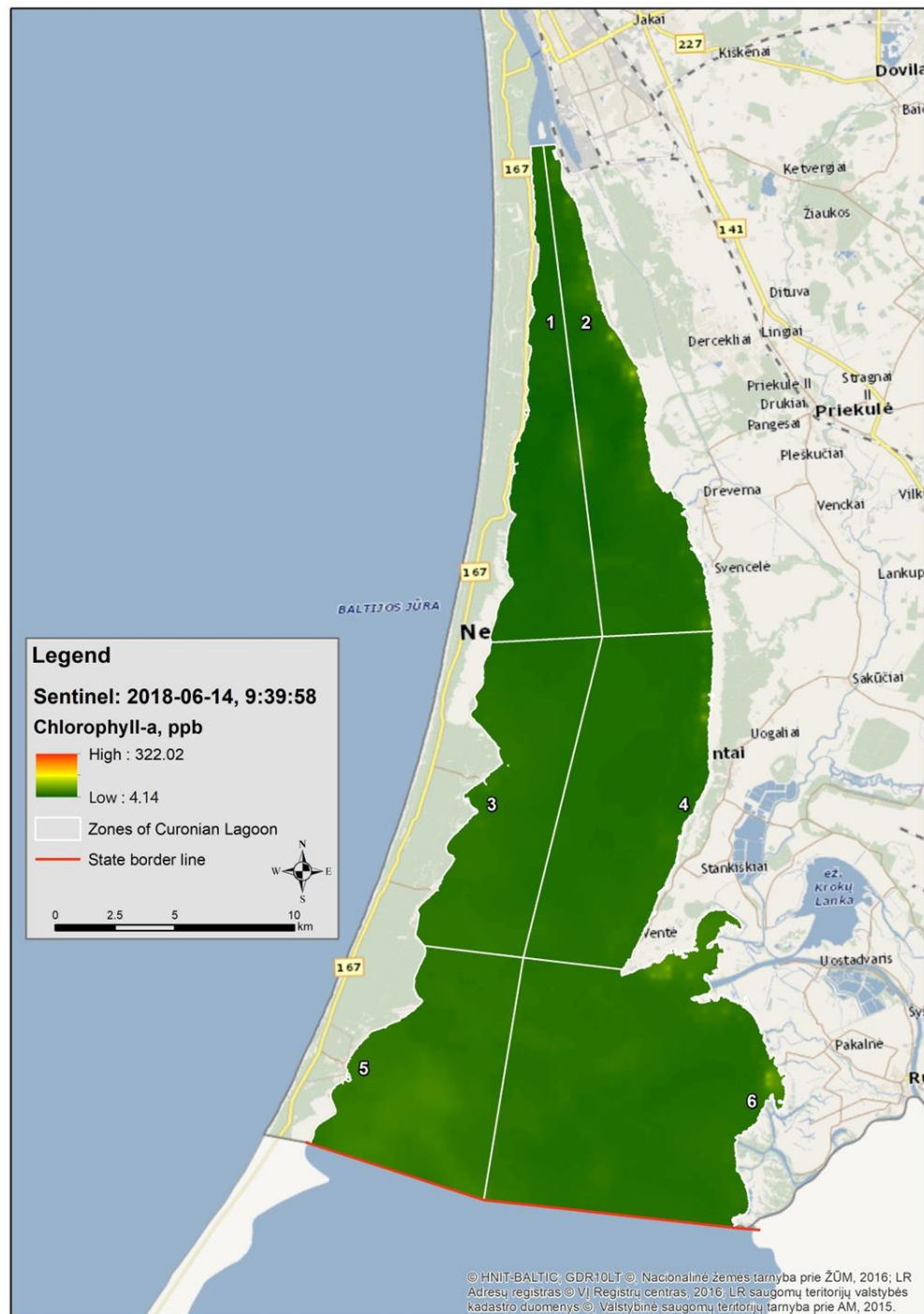


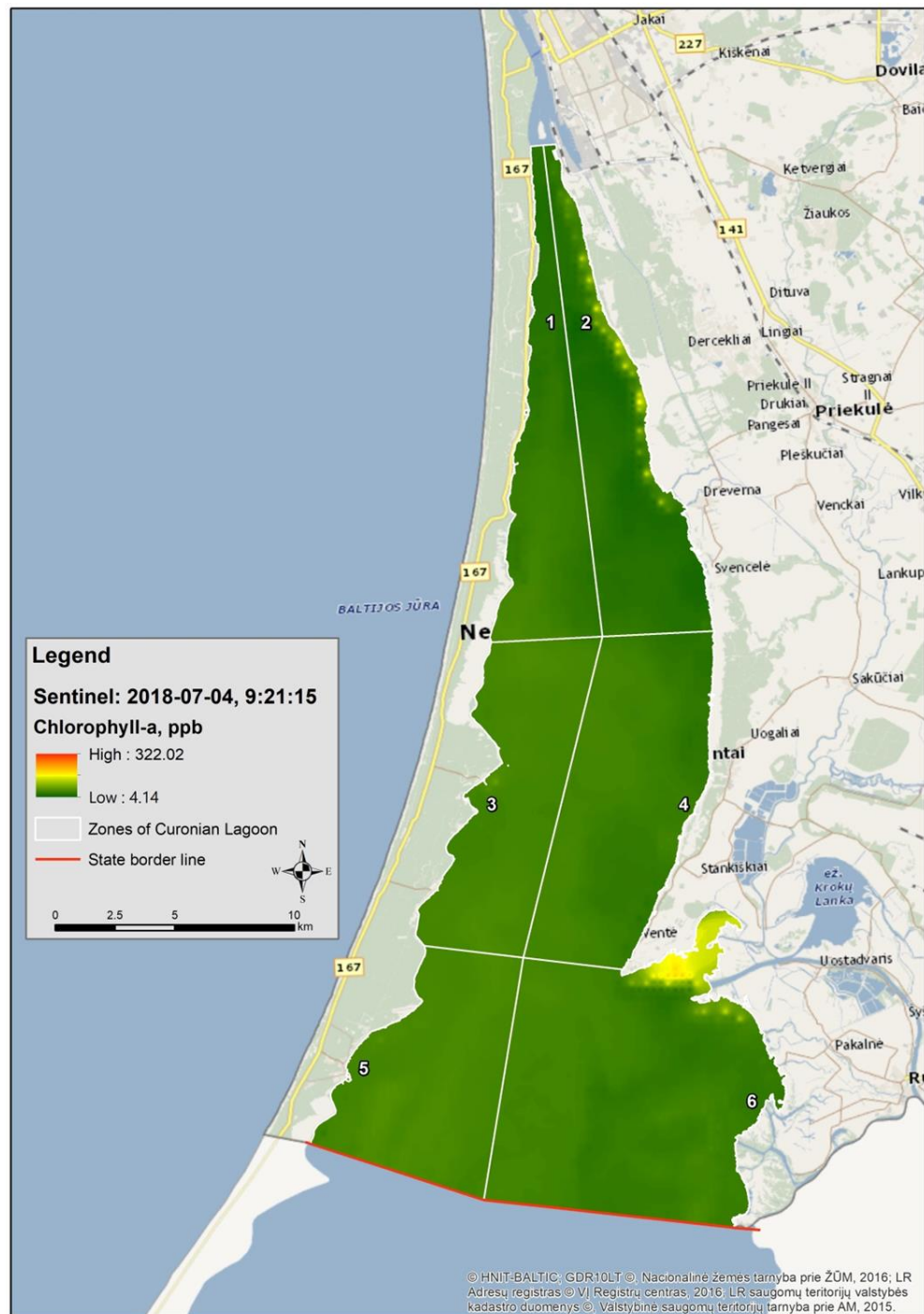
2018

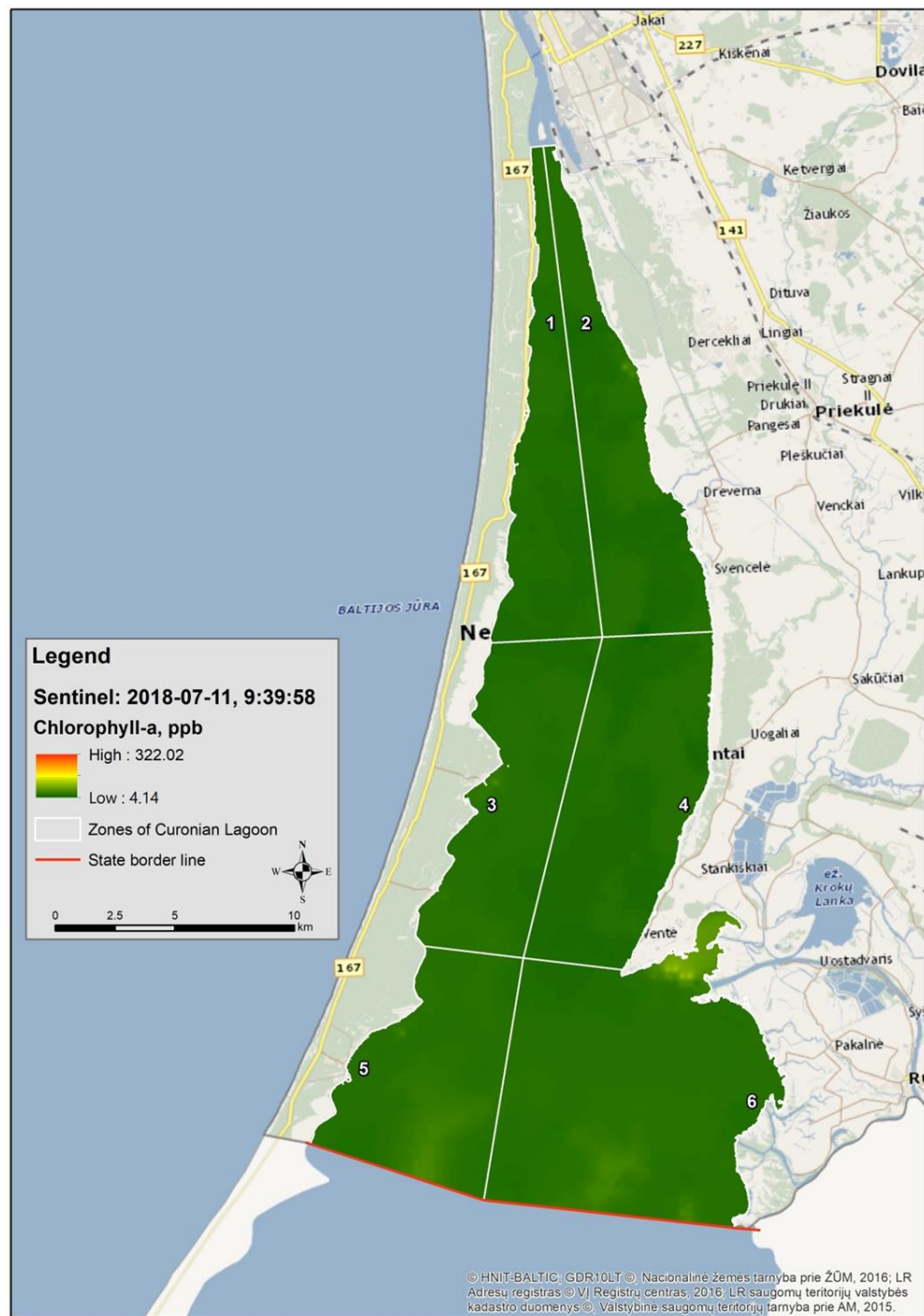


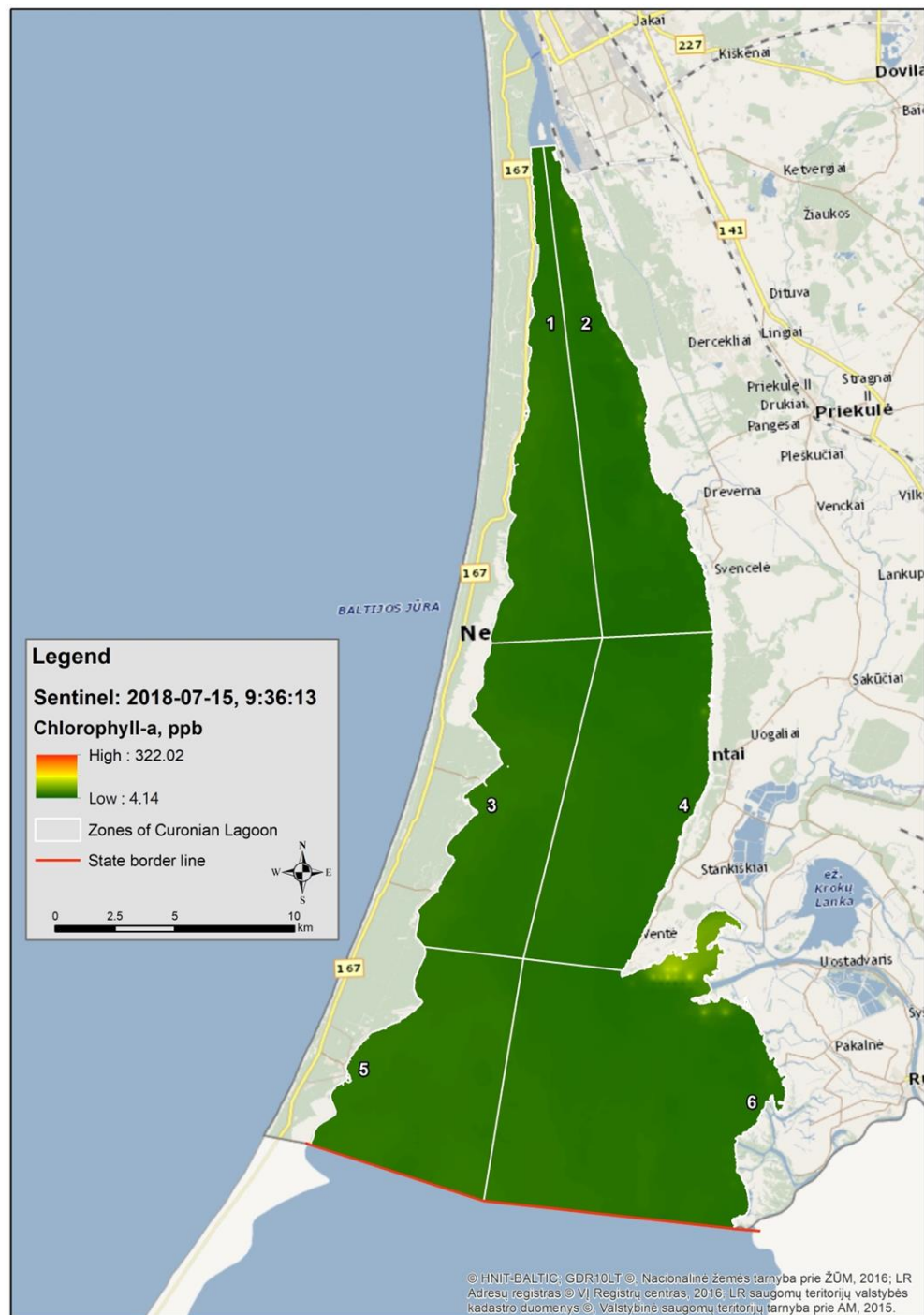


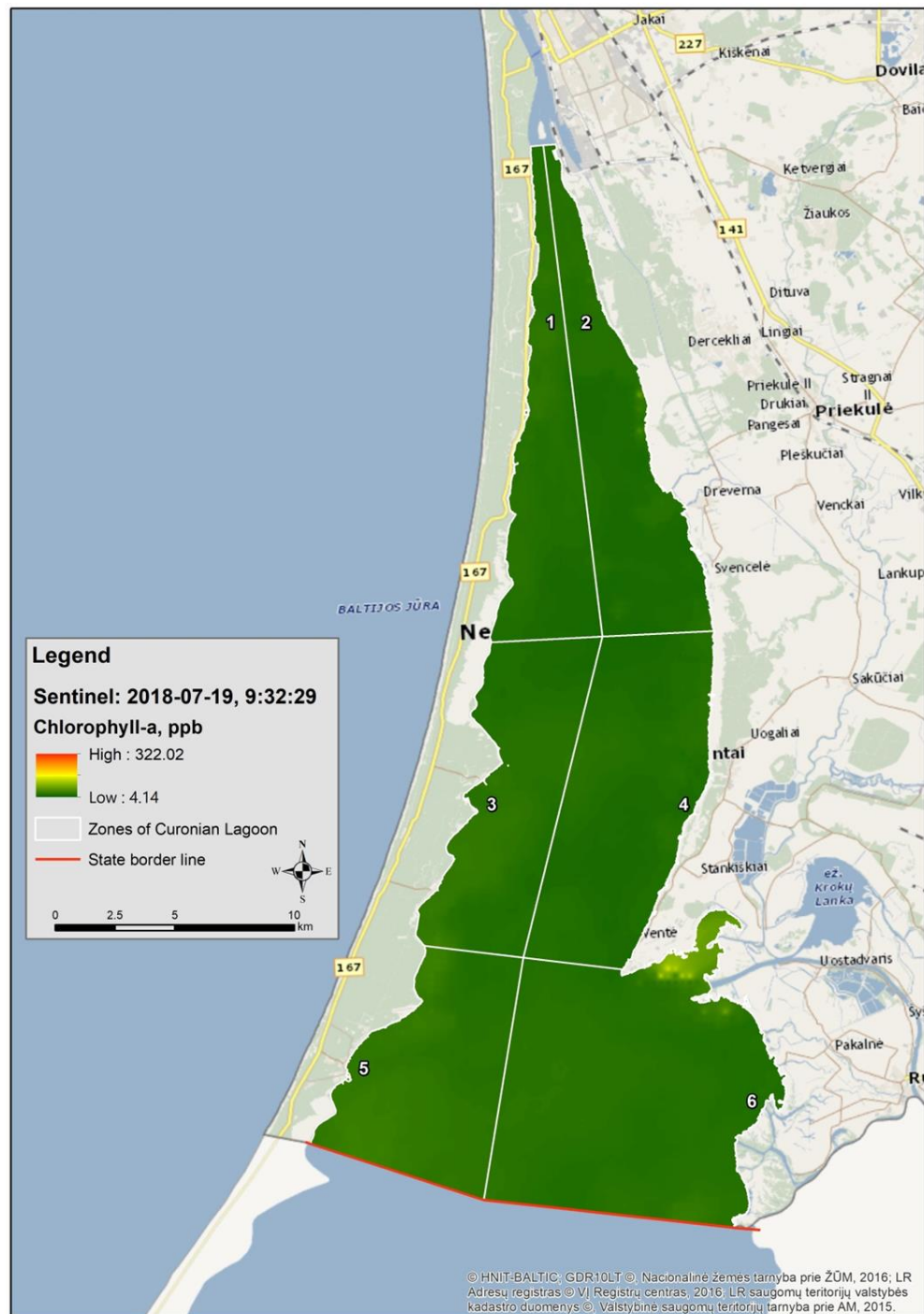


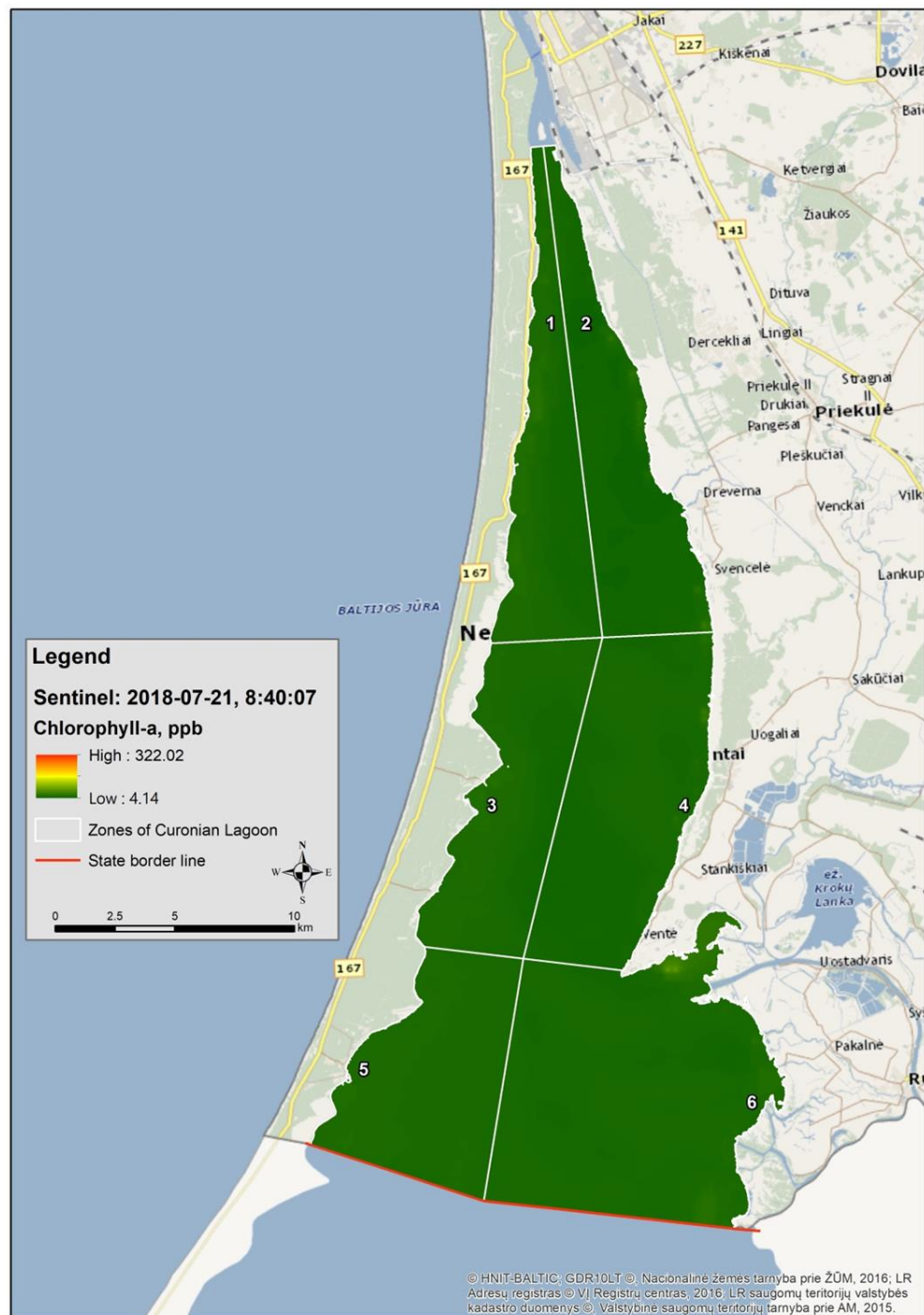


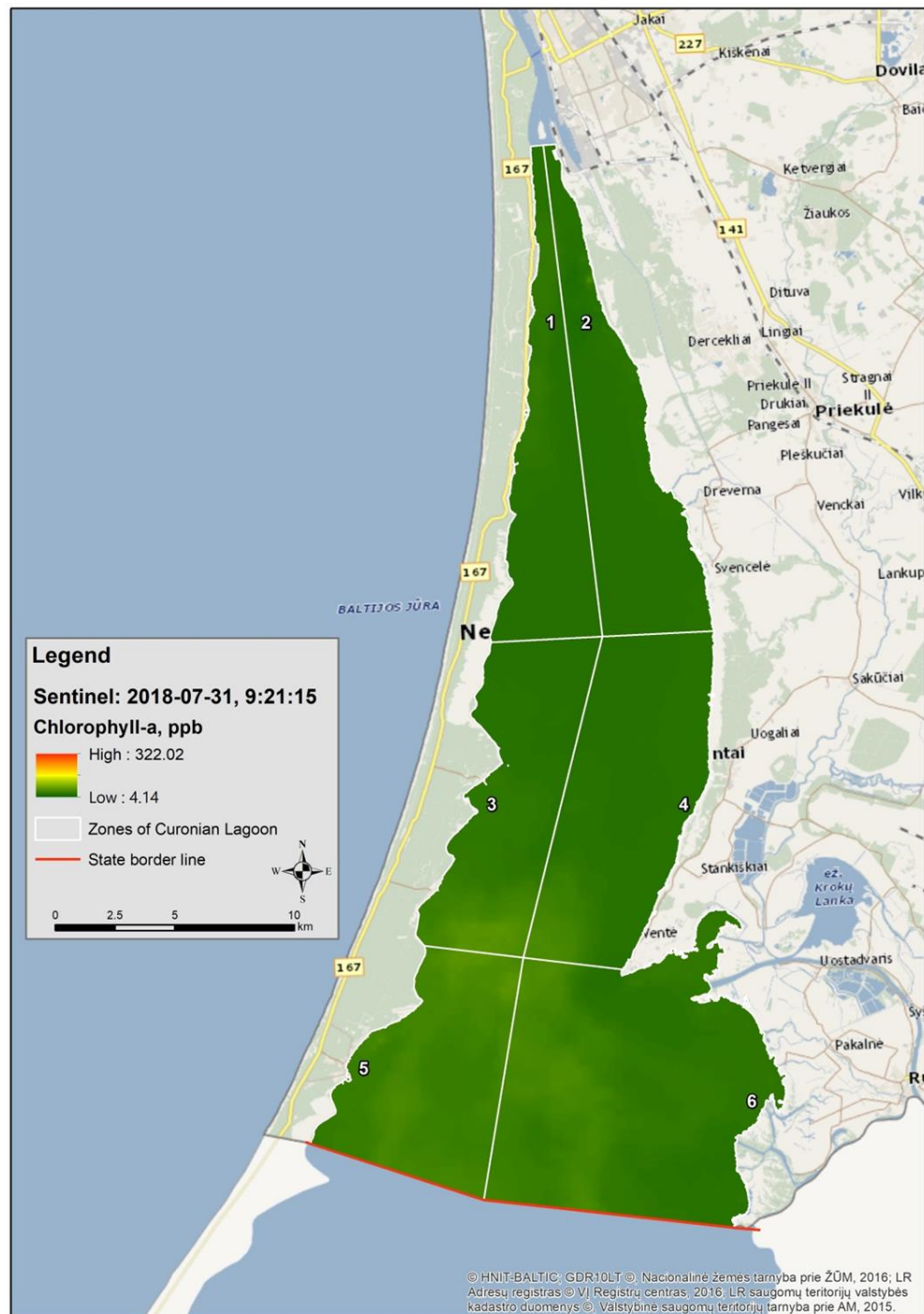


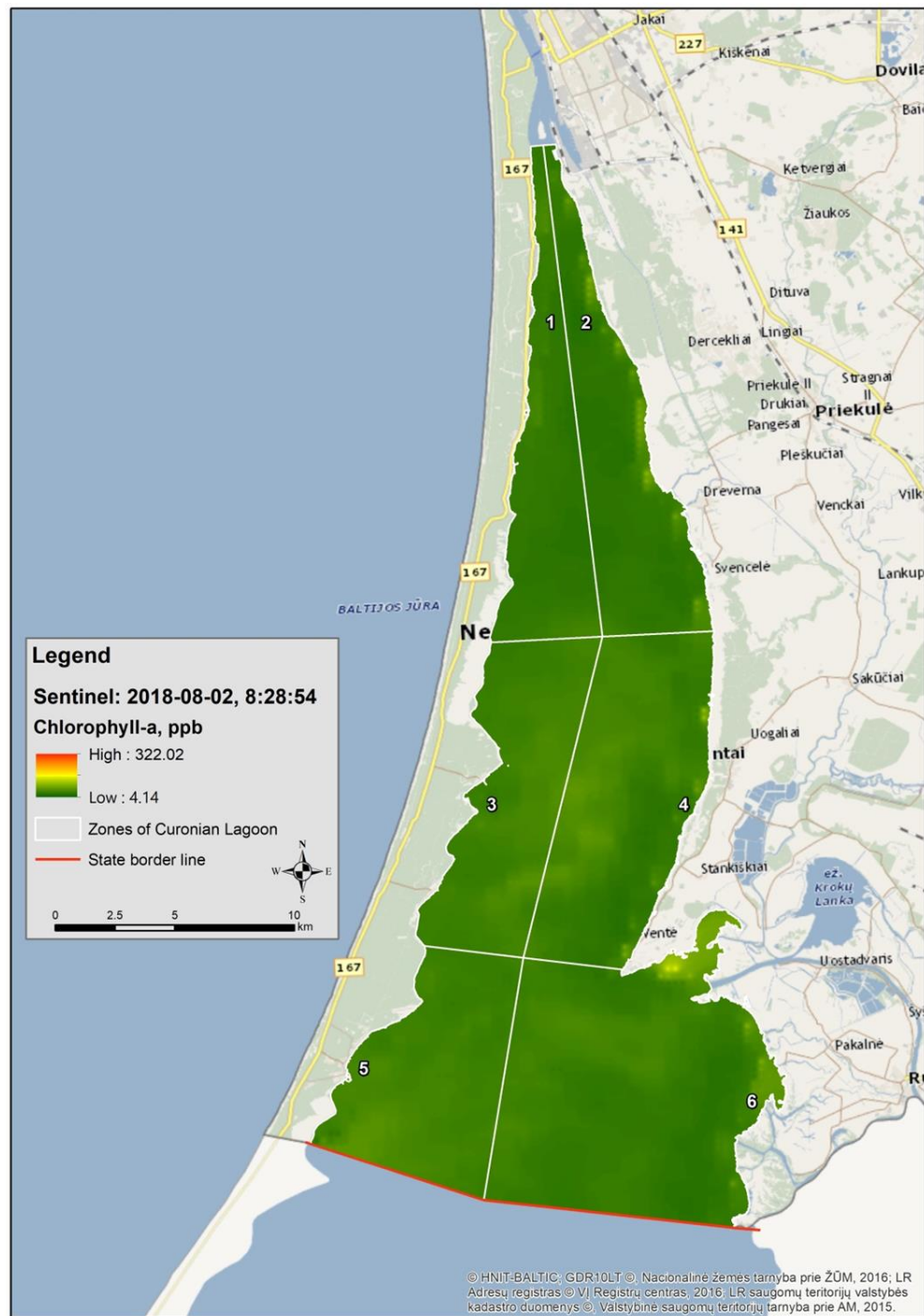


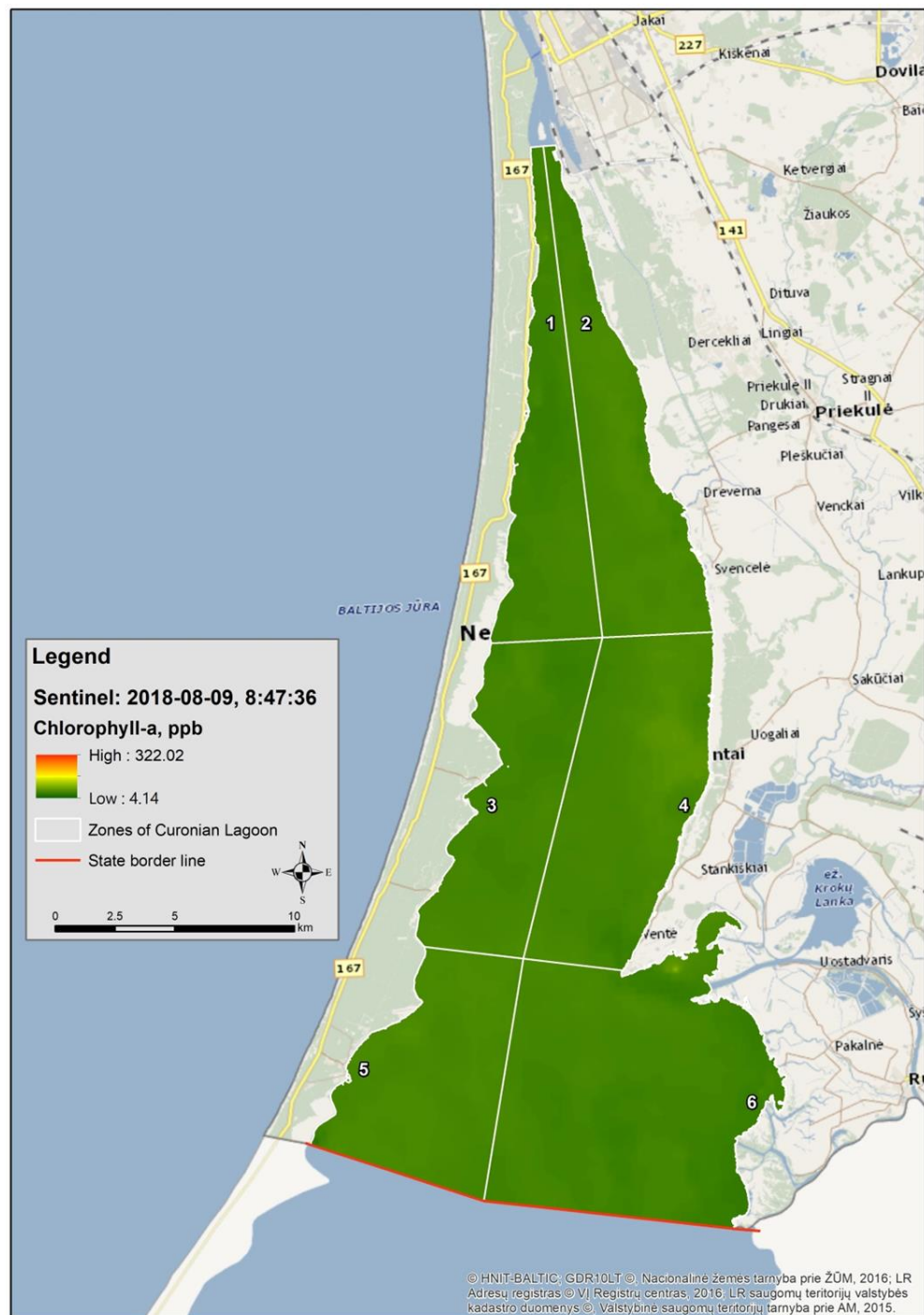


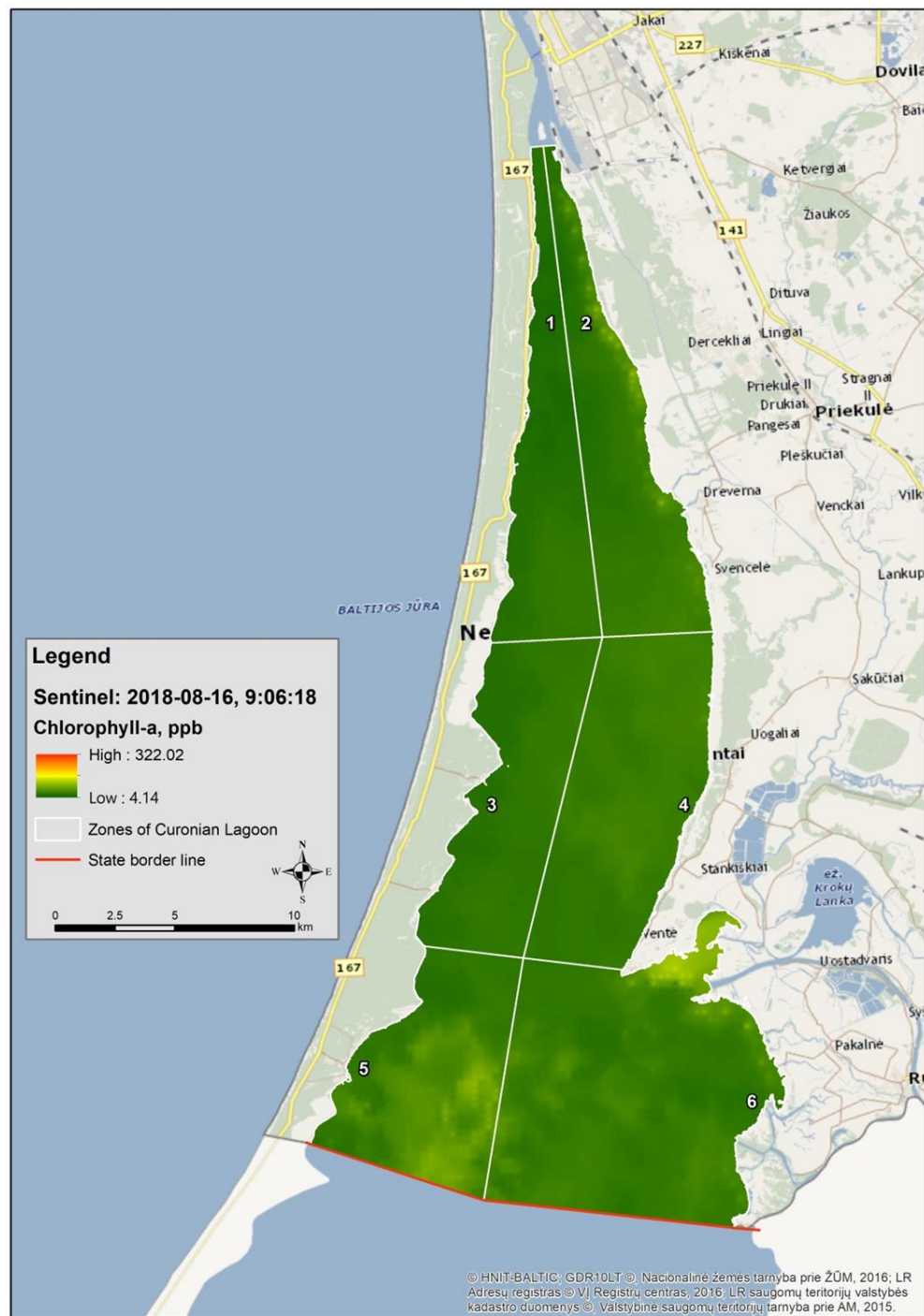


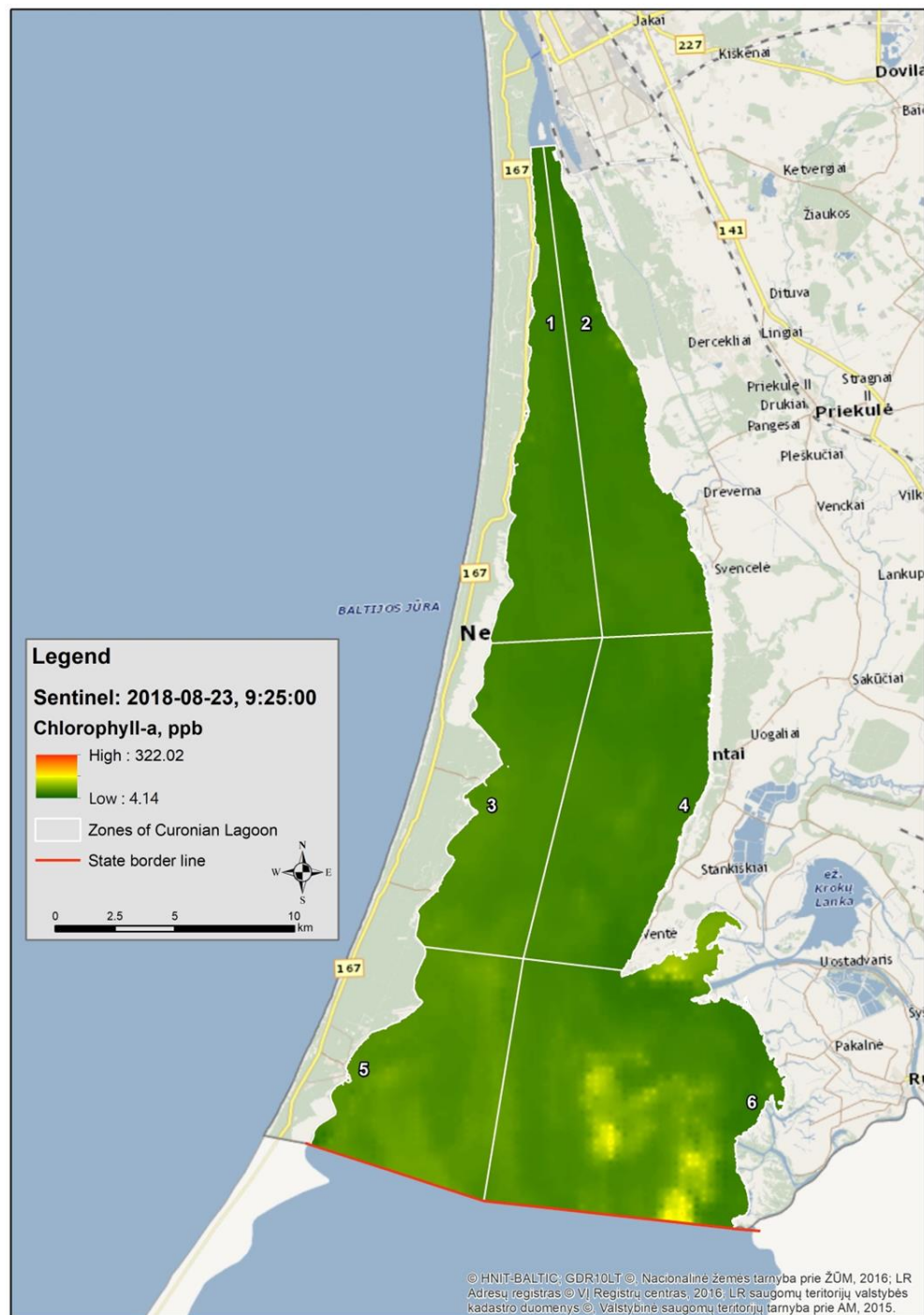


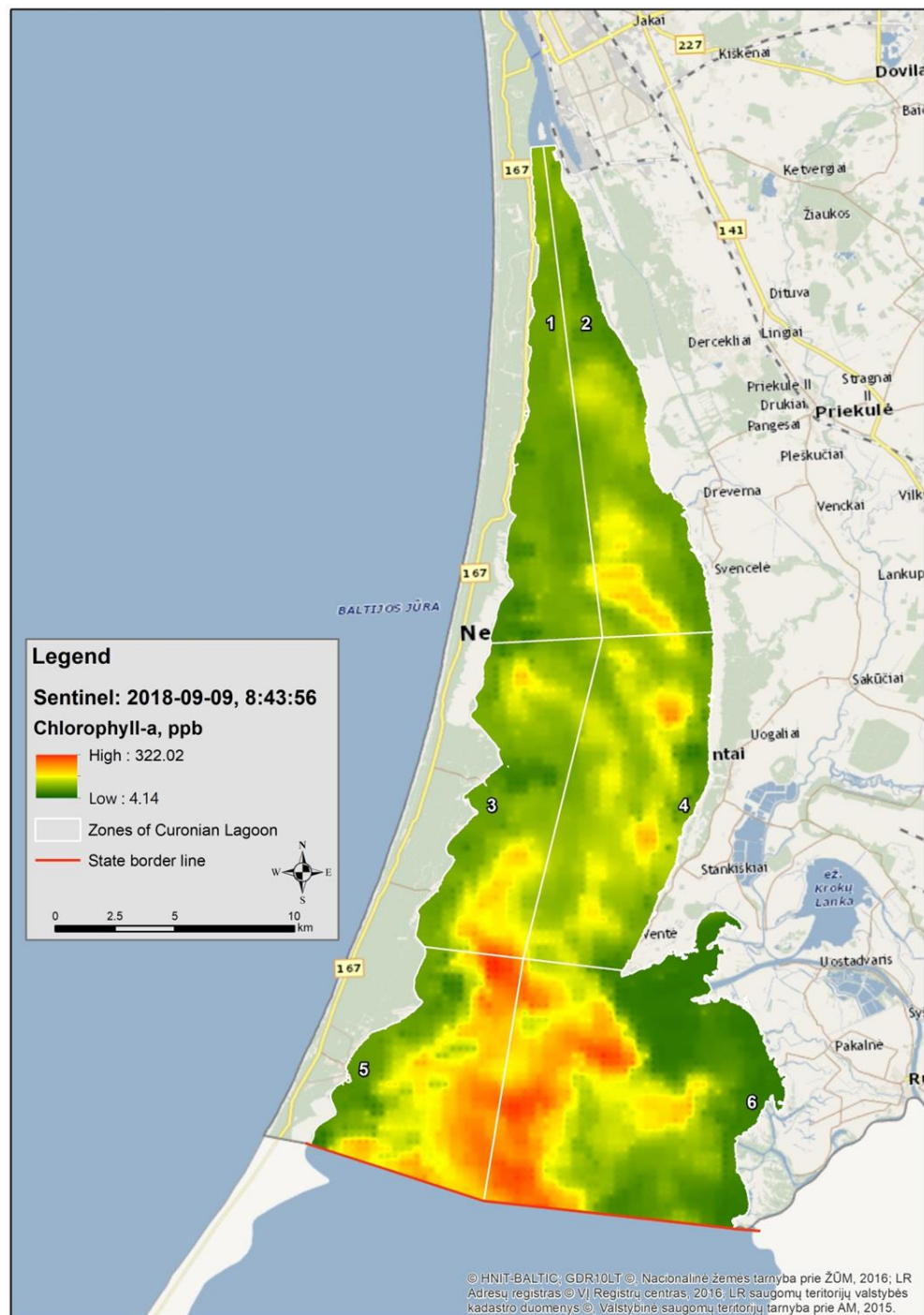


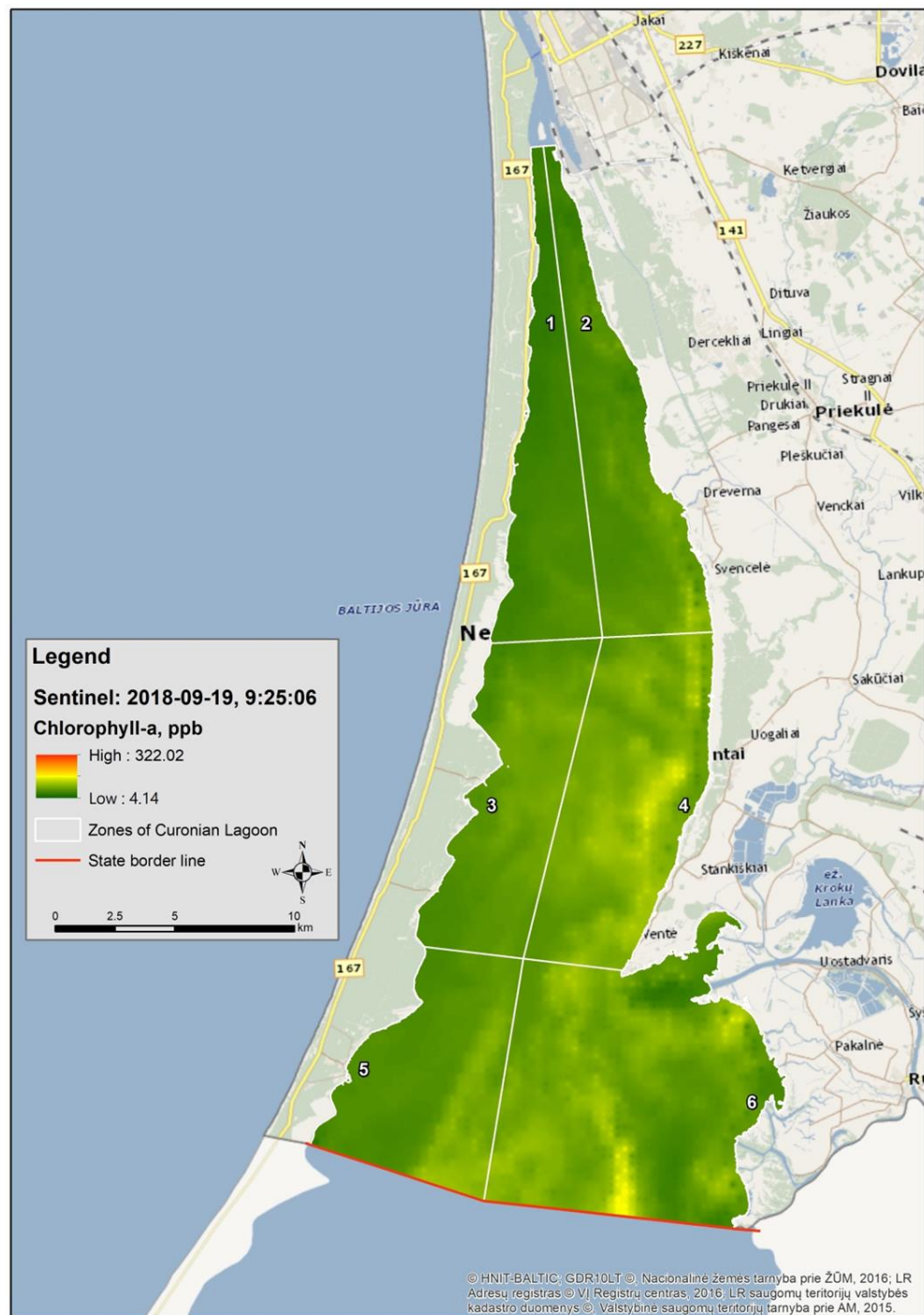


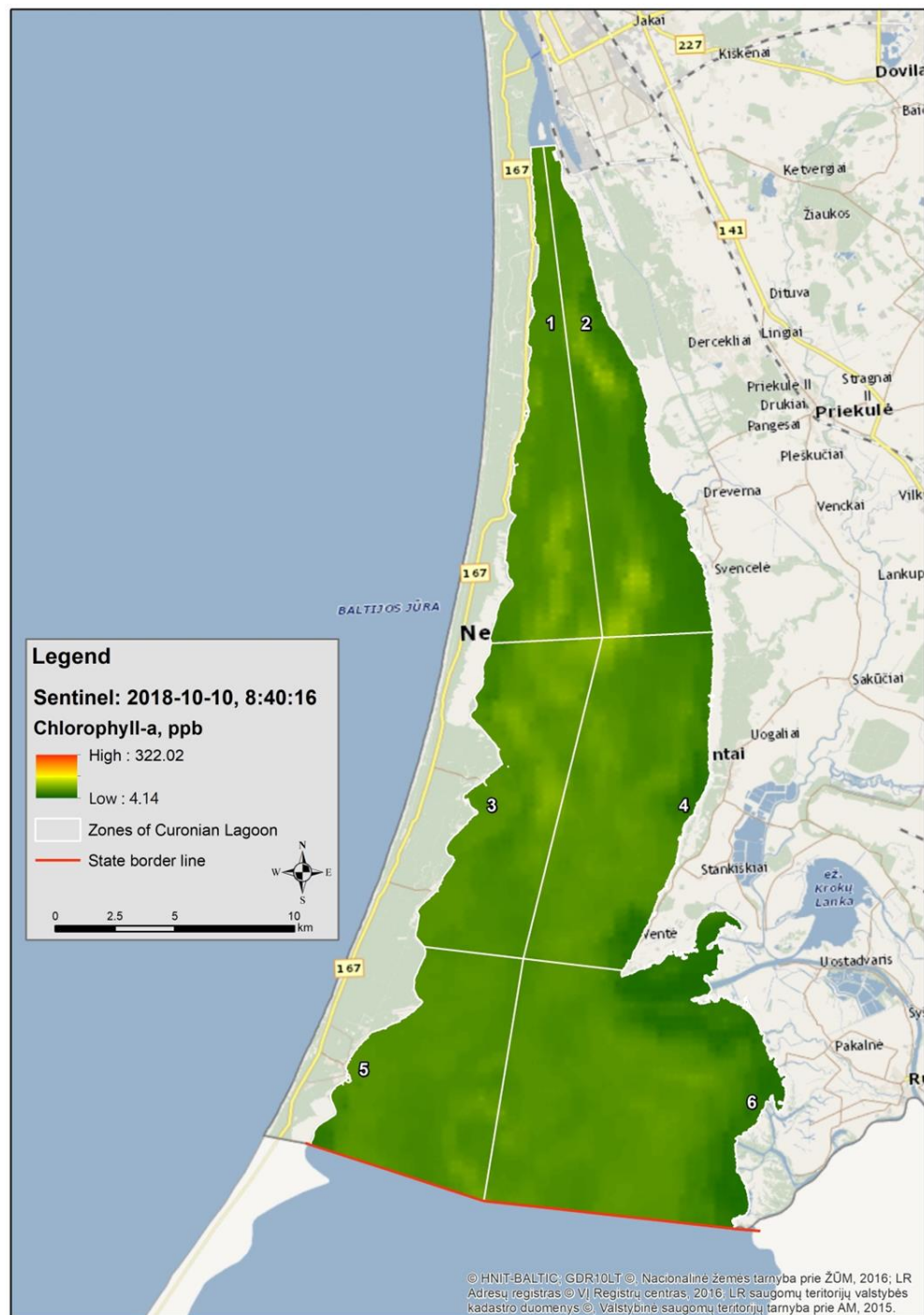


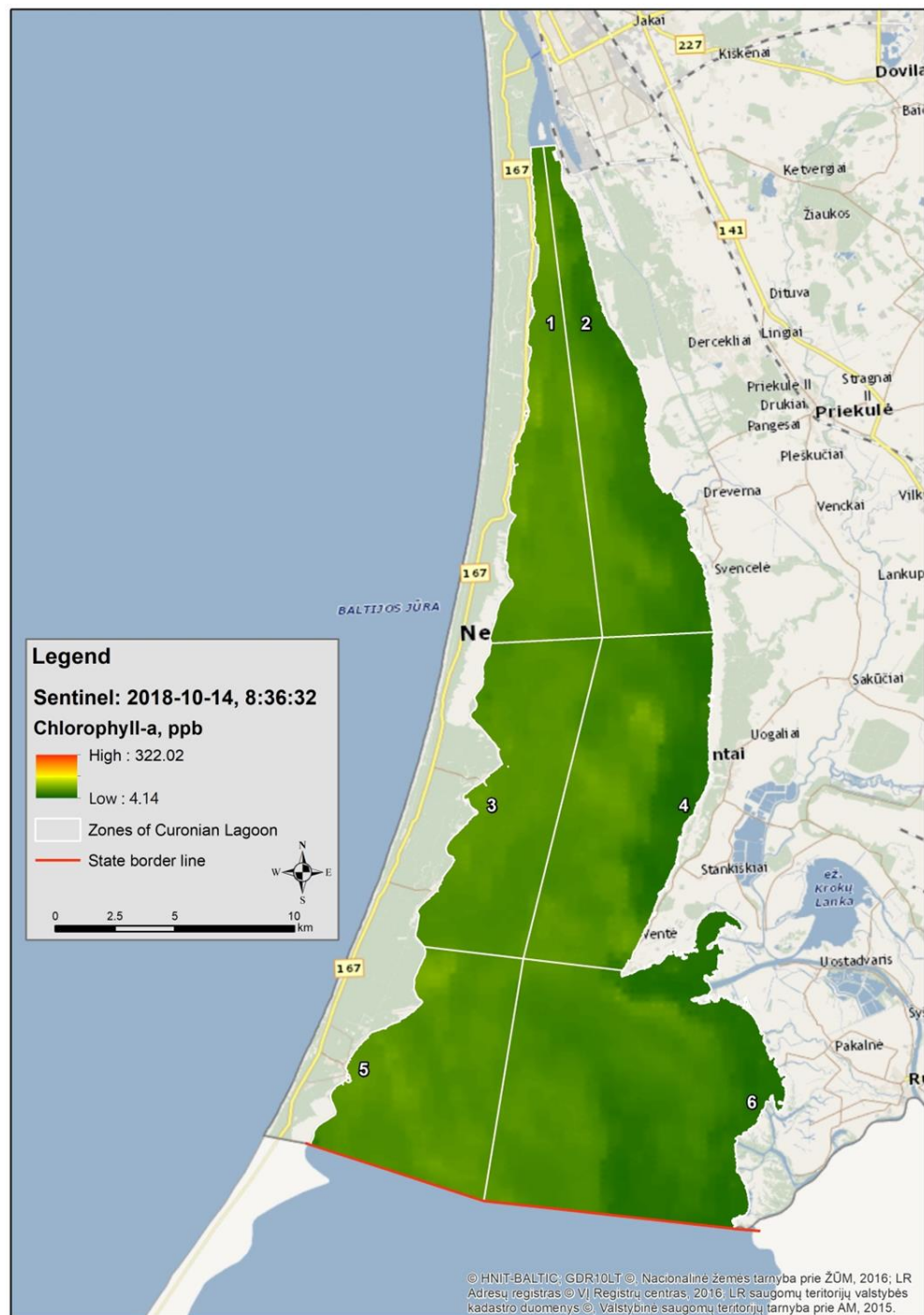


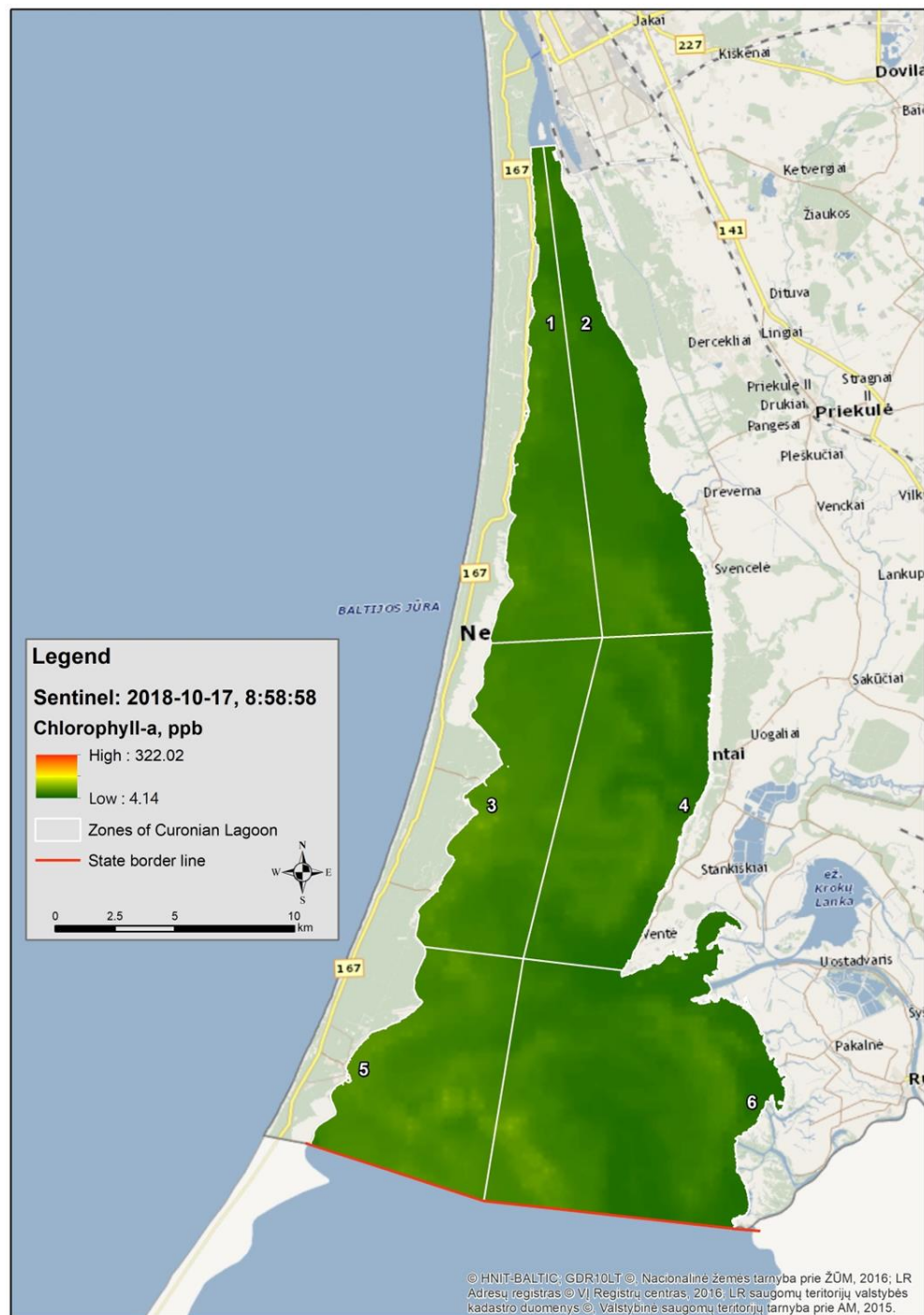


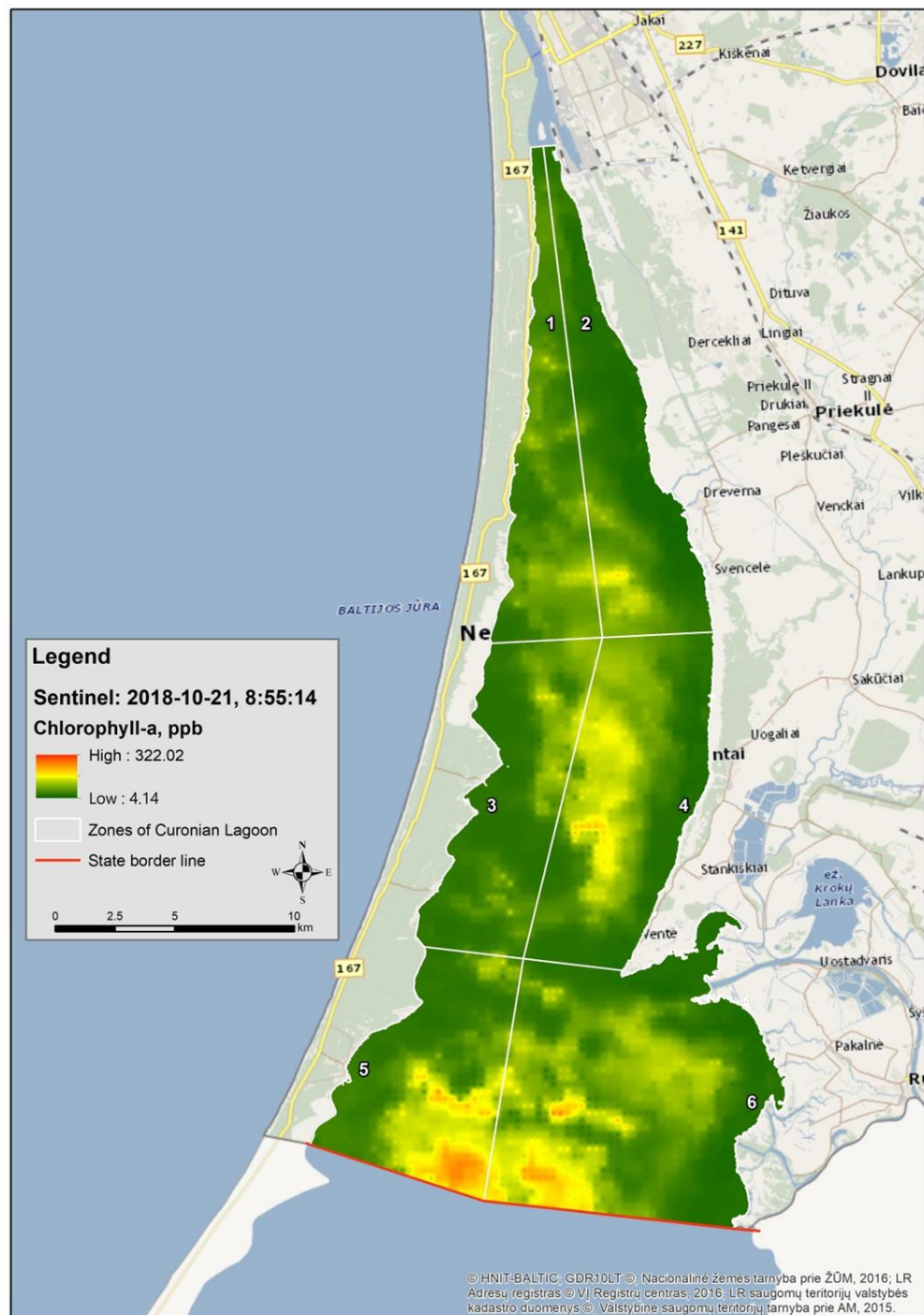




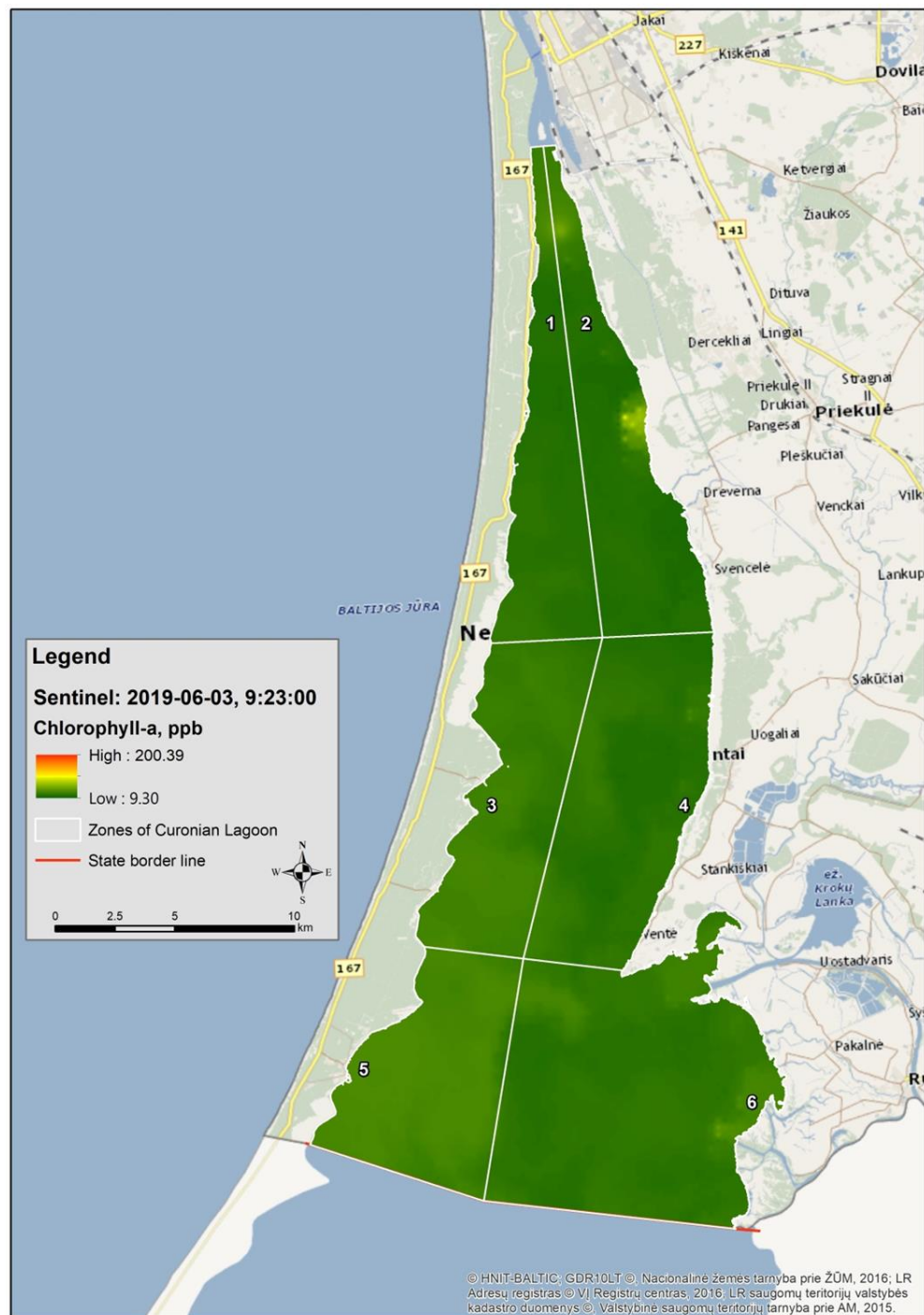


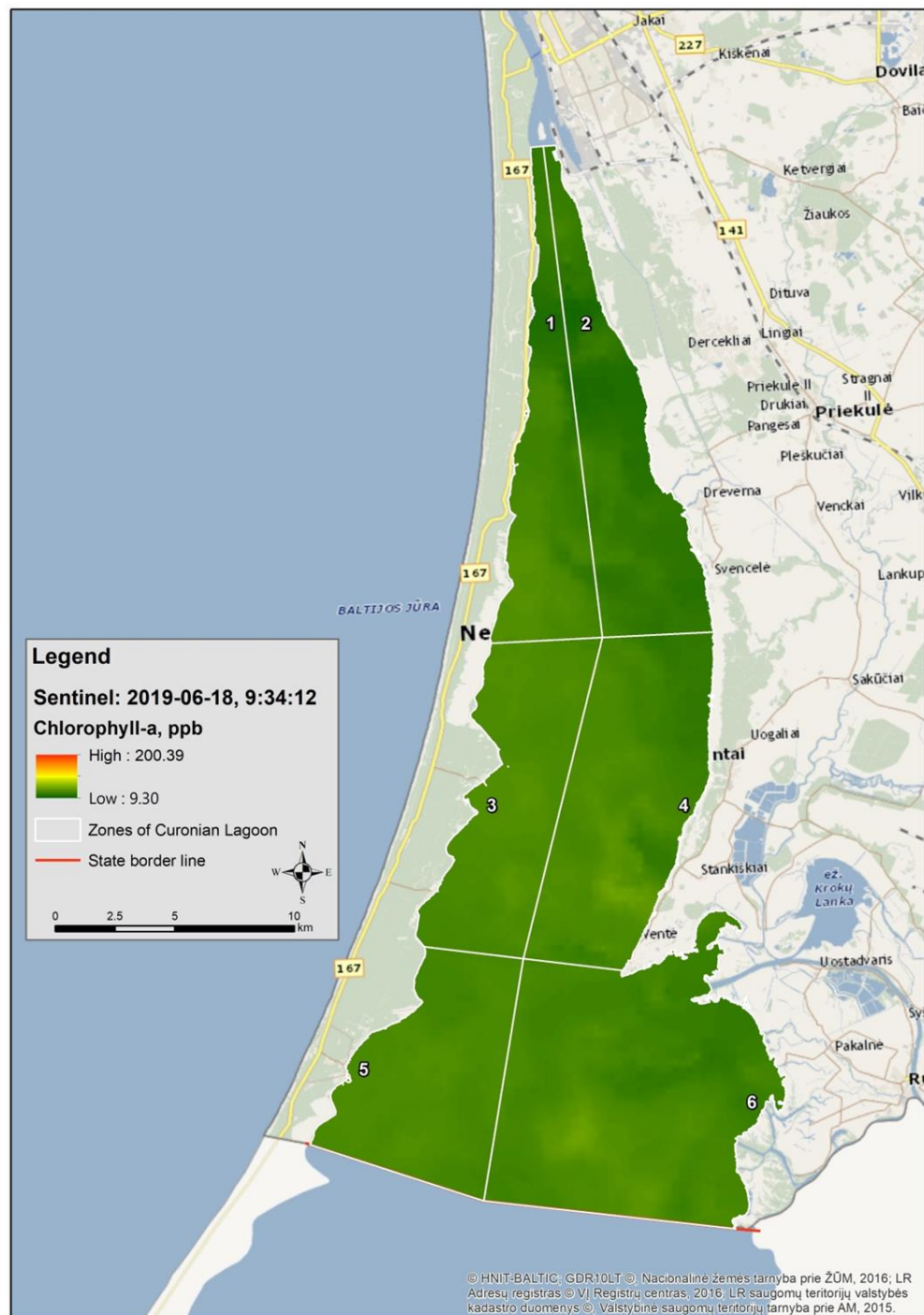


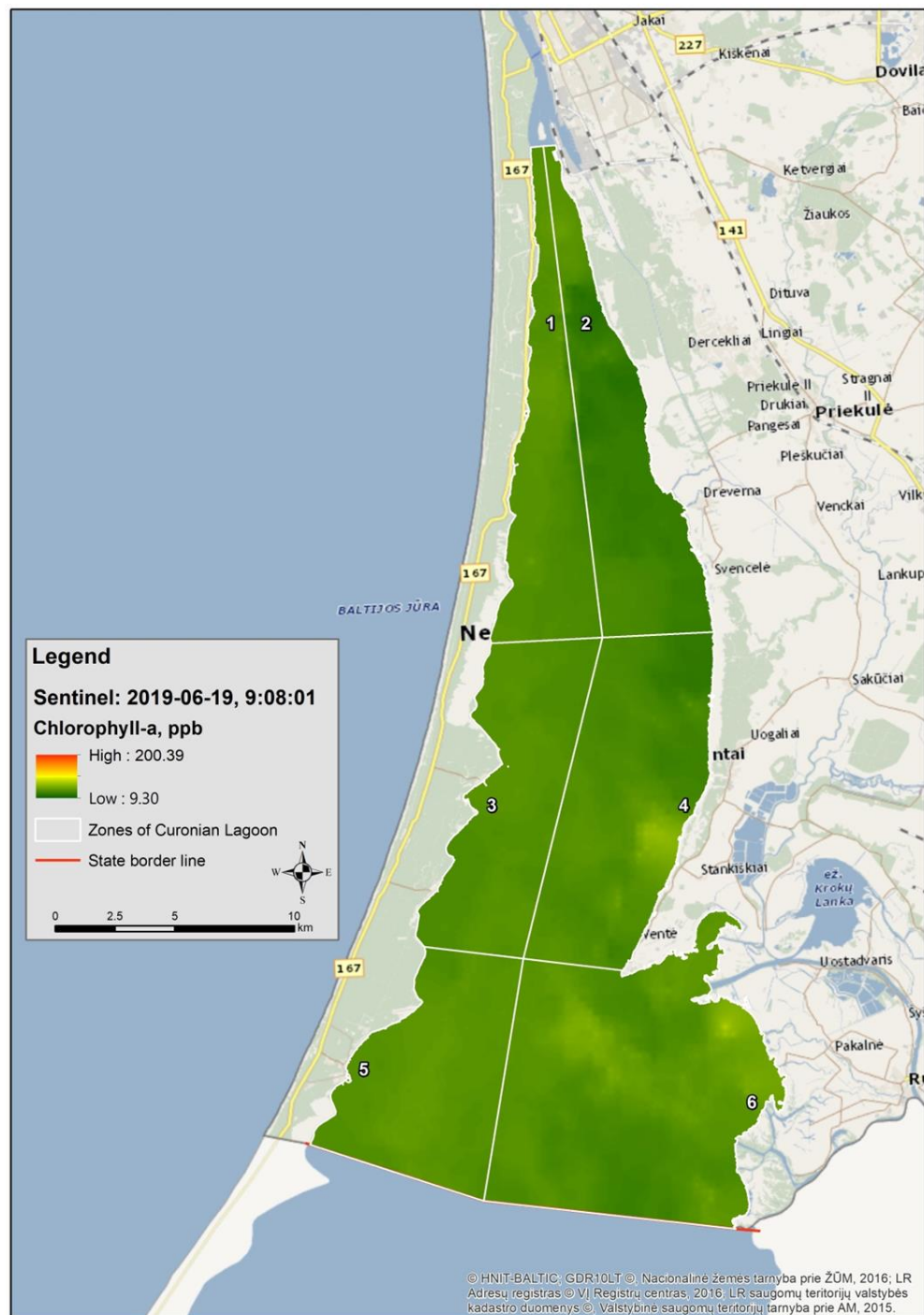


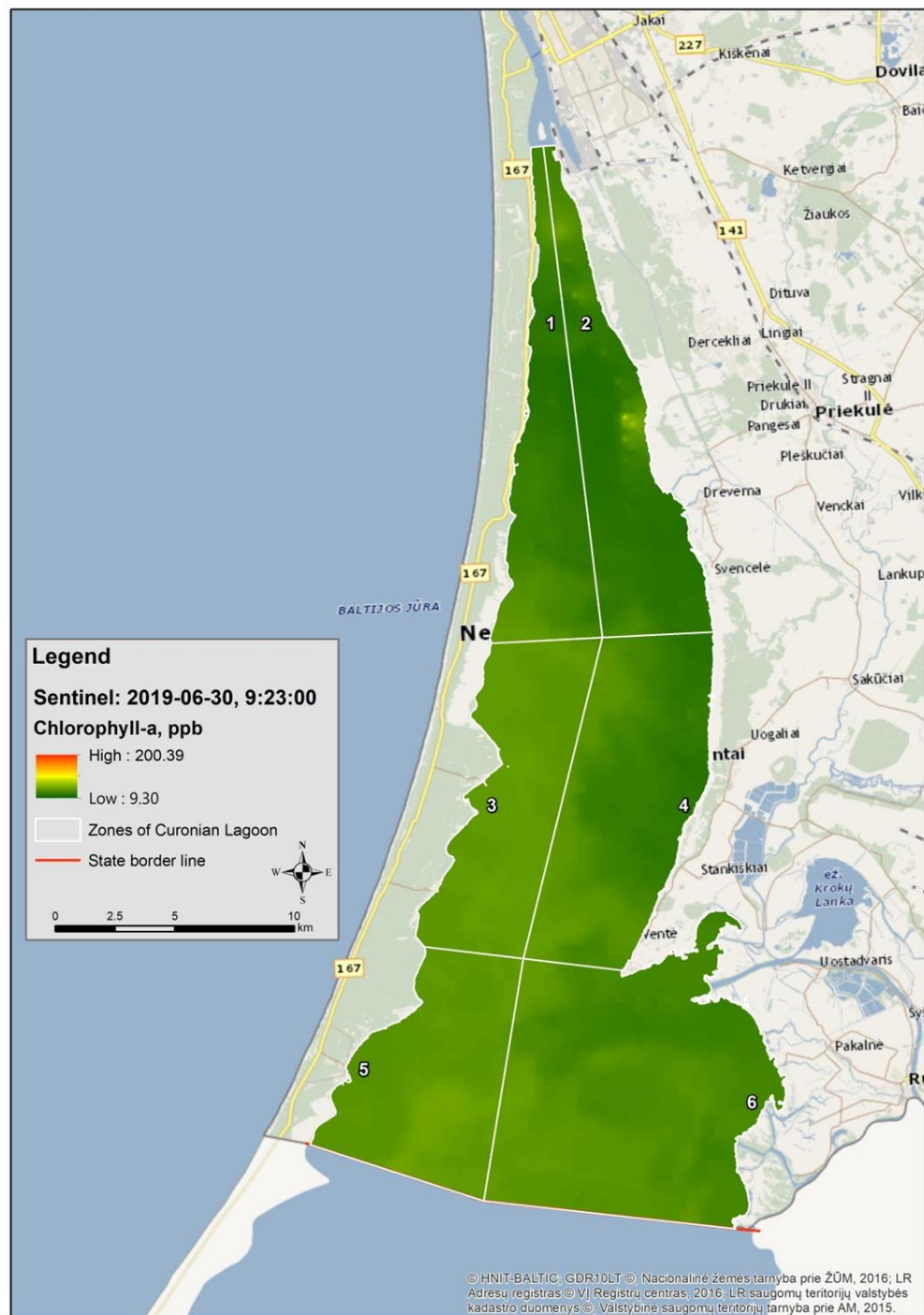


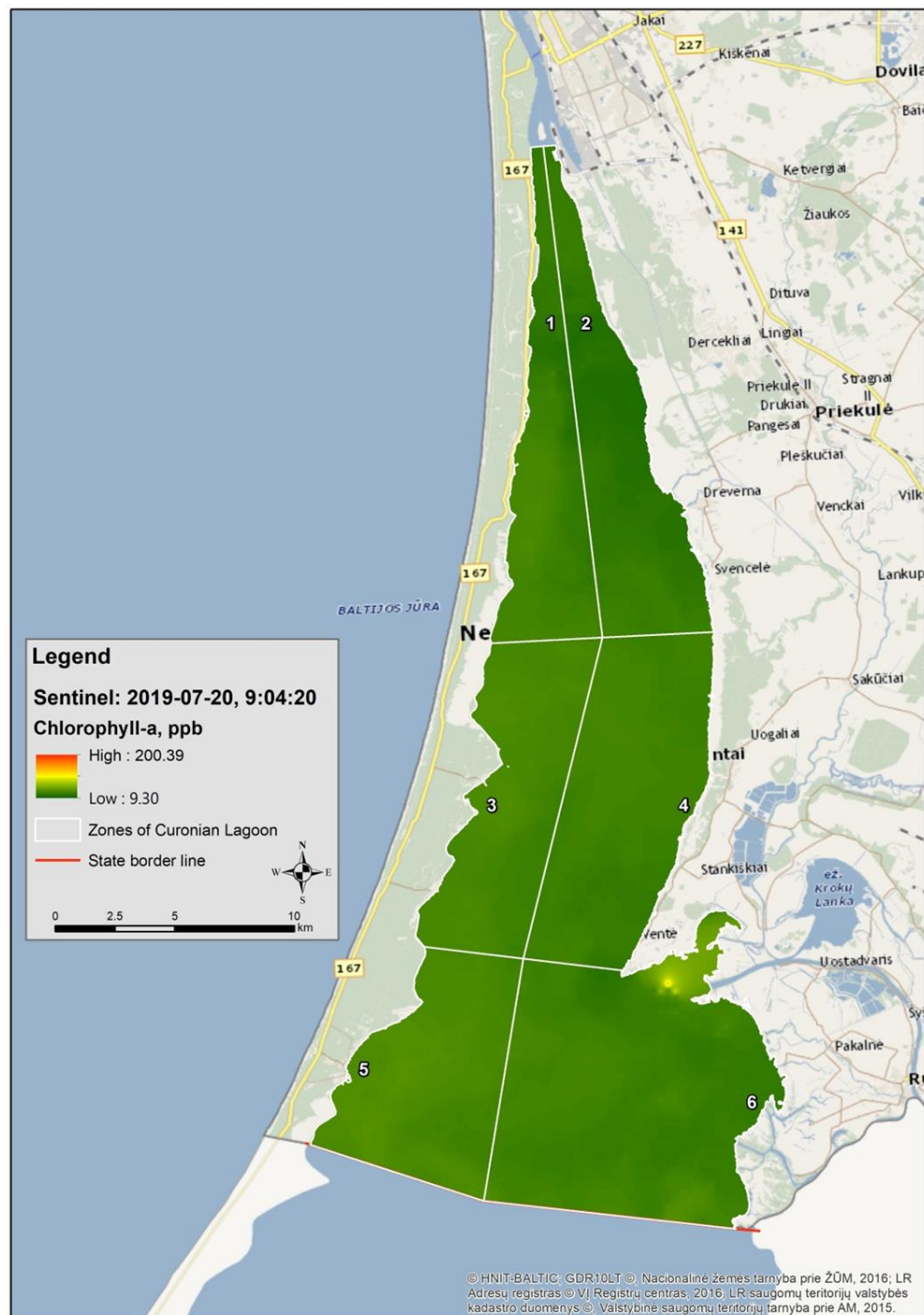
2019

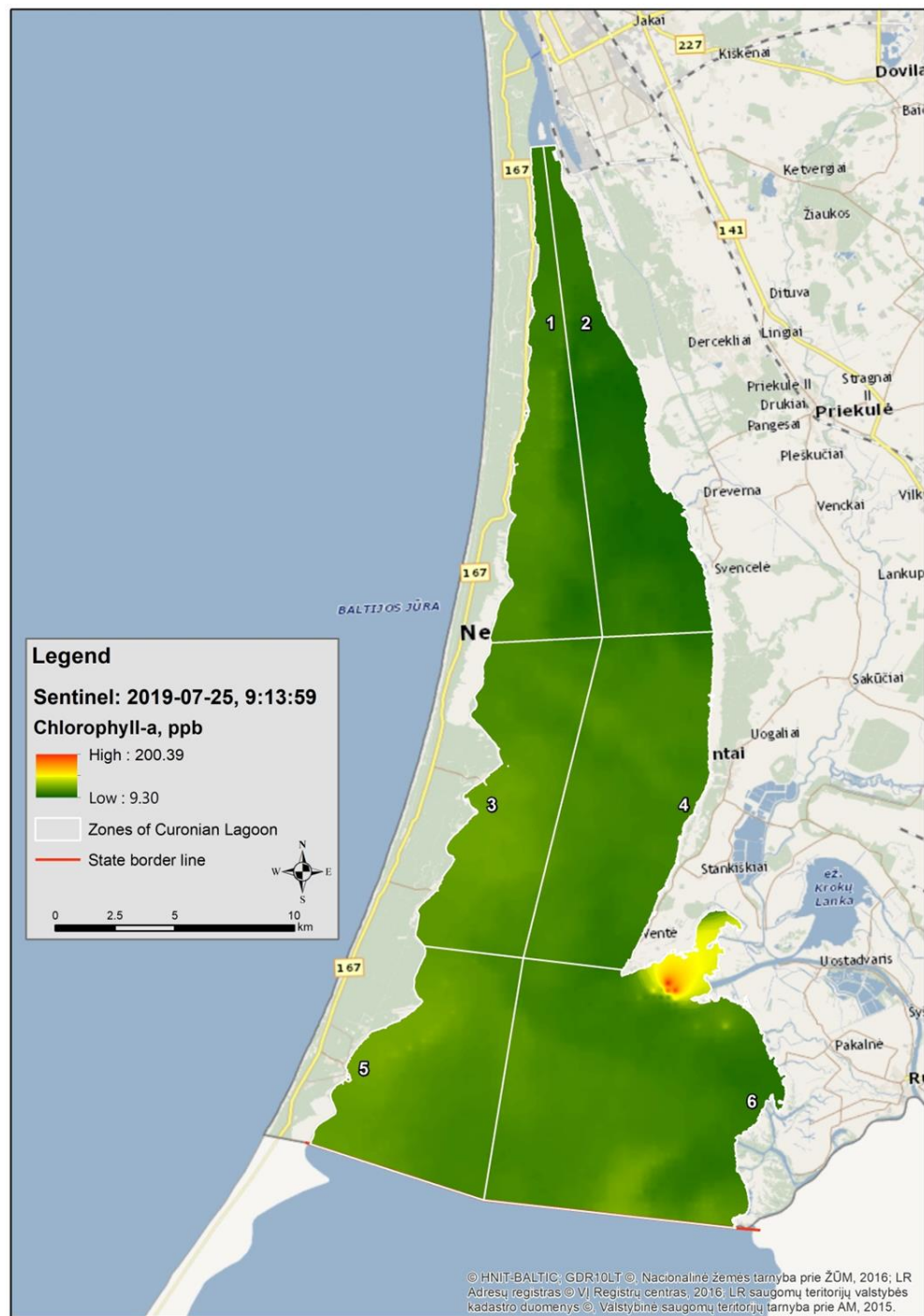


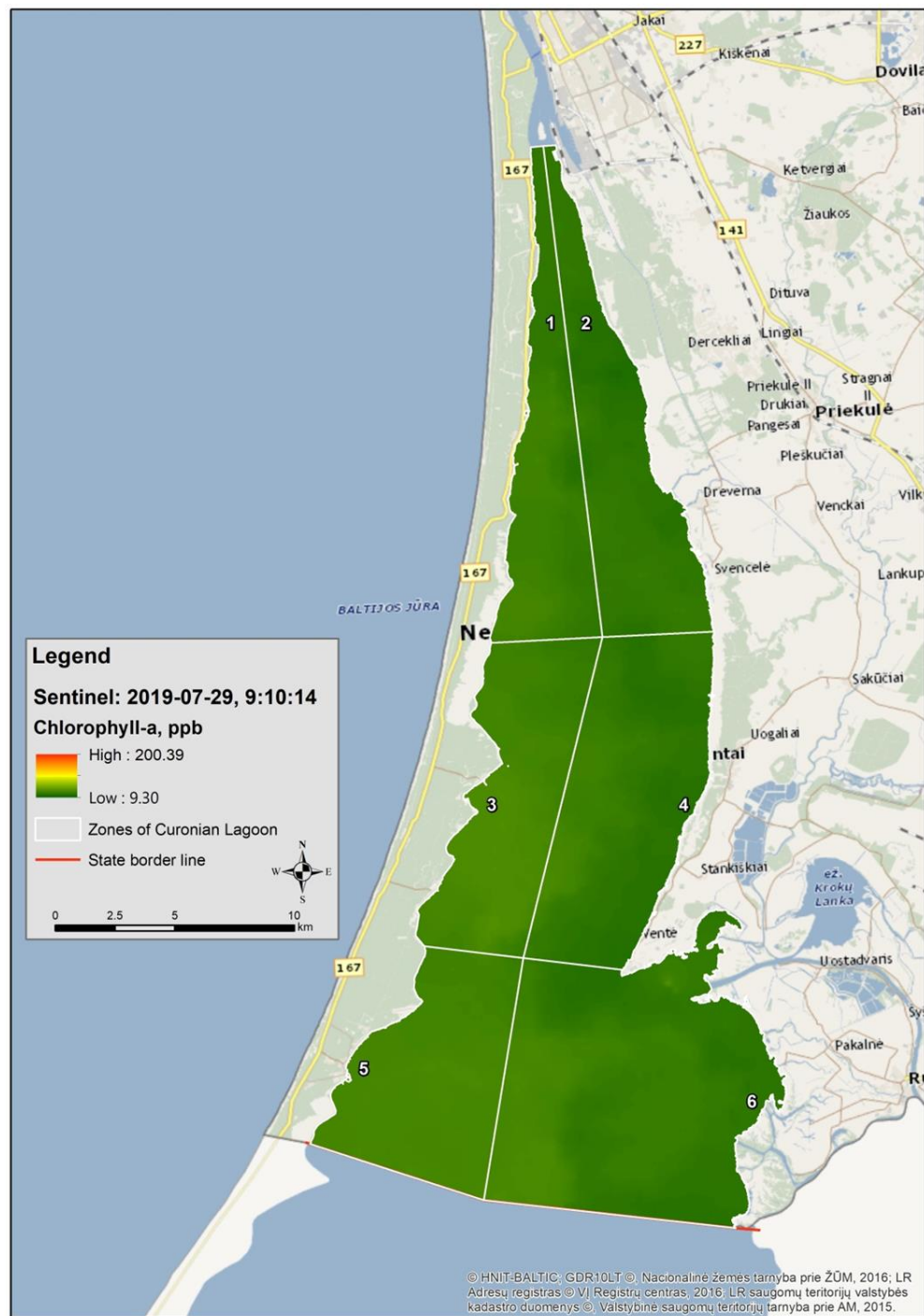


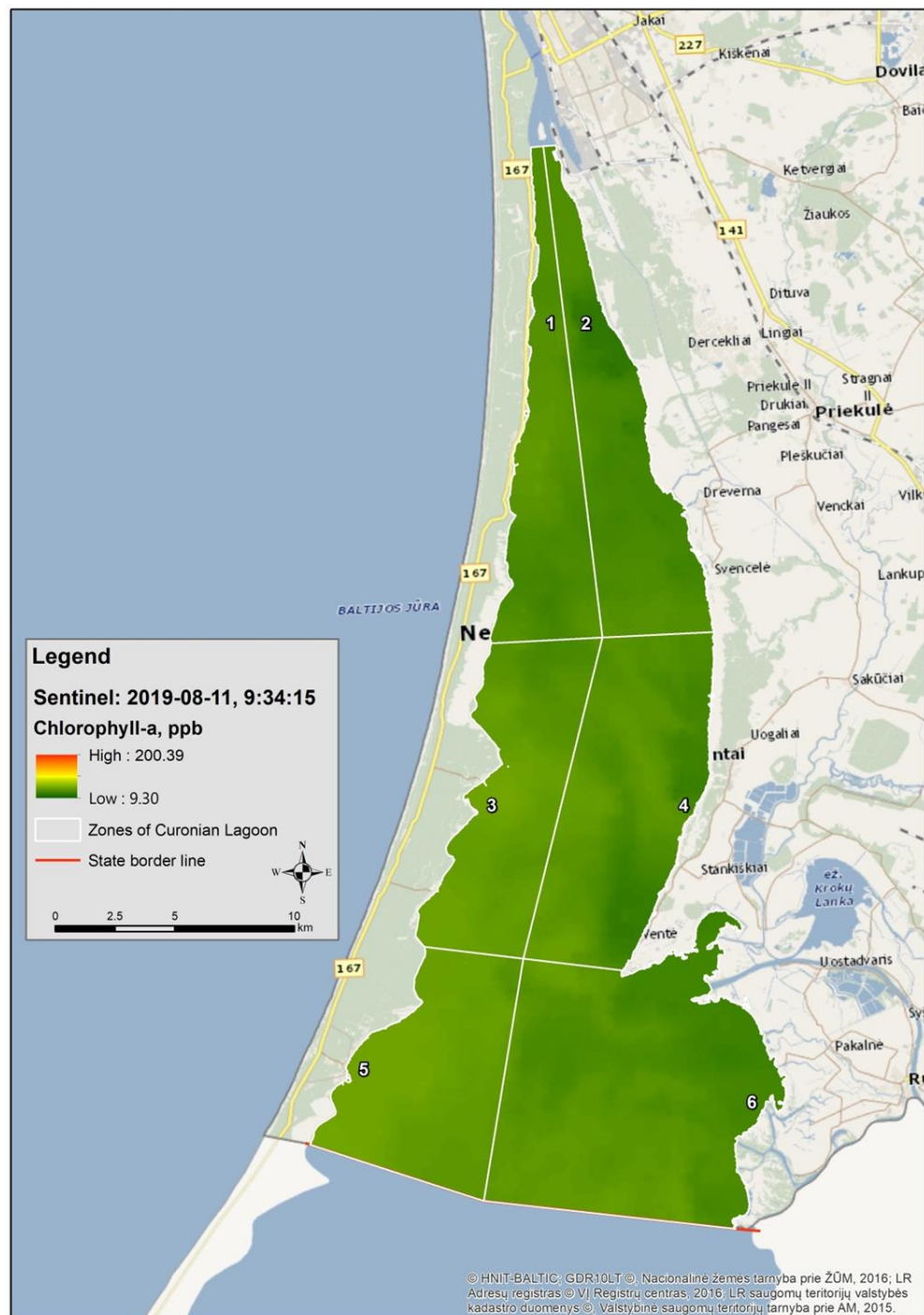


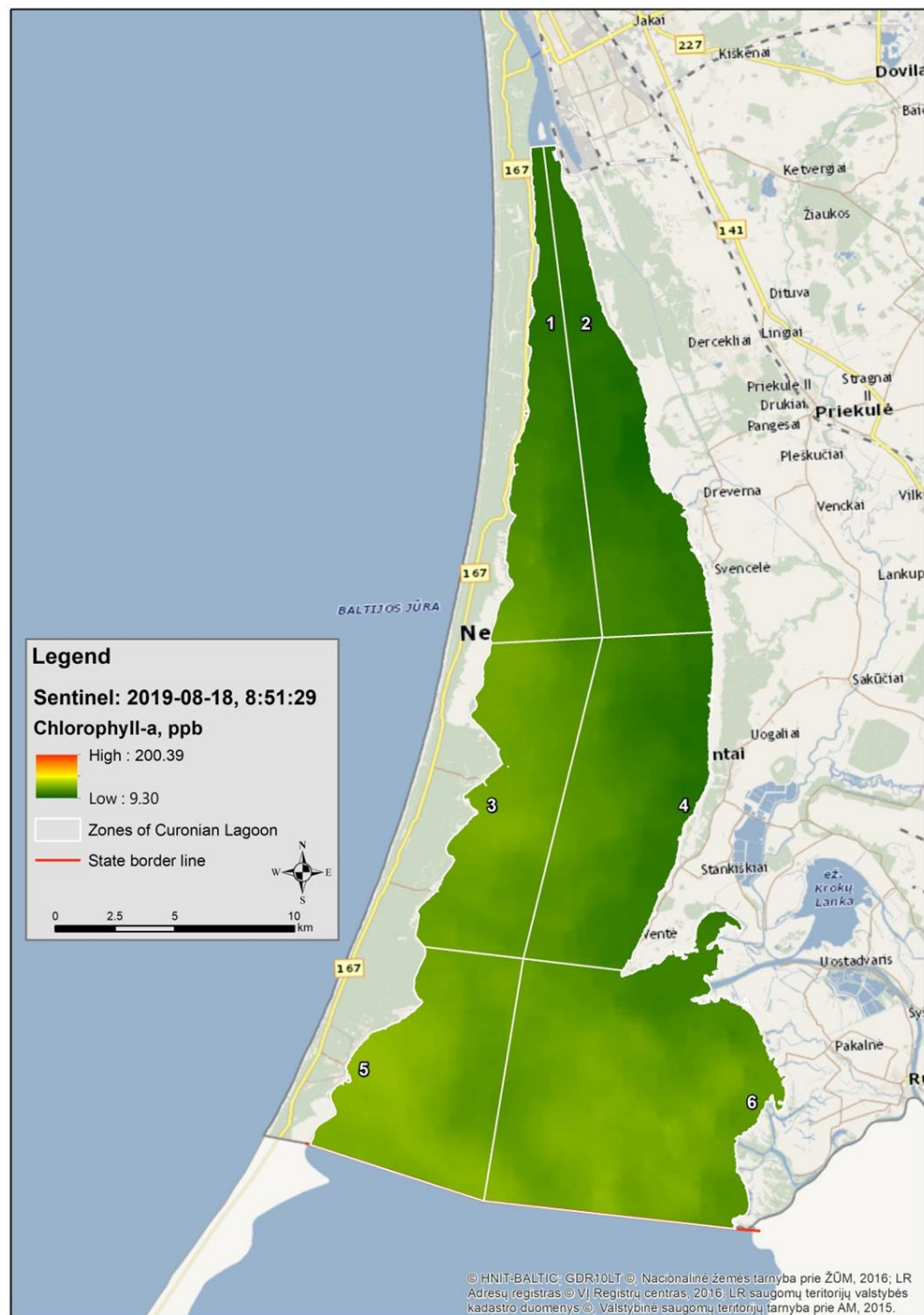


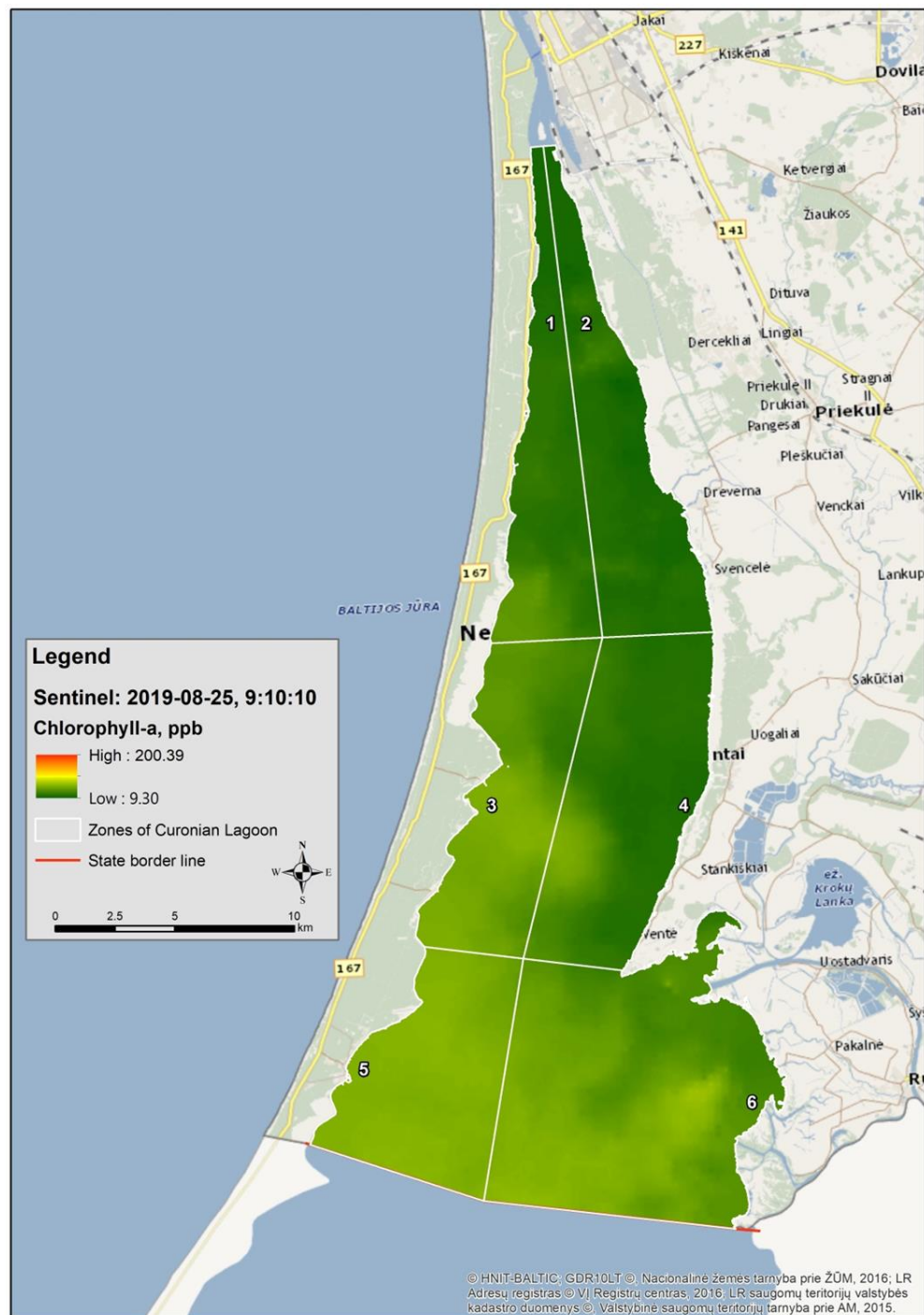


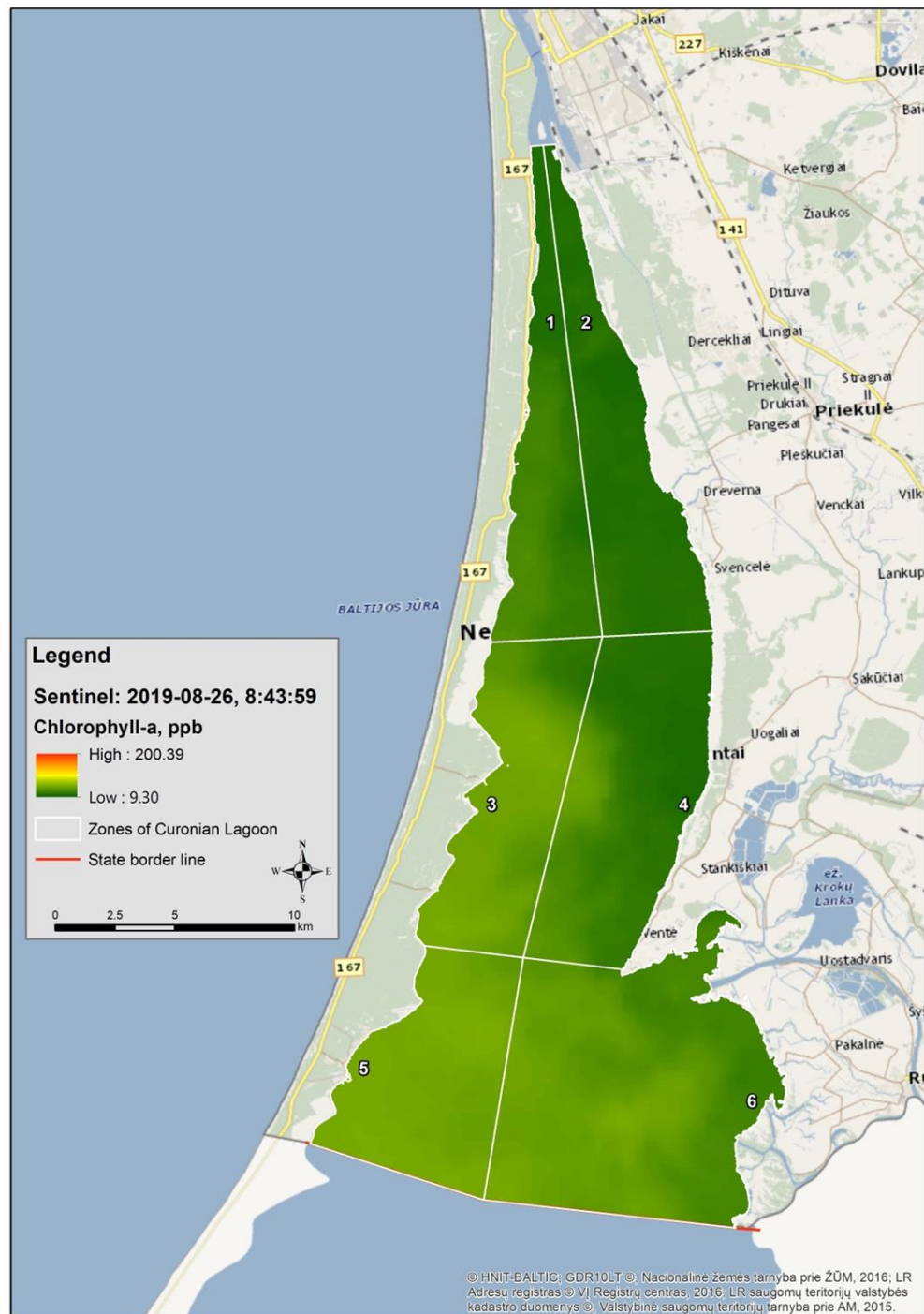


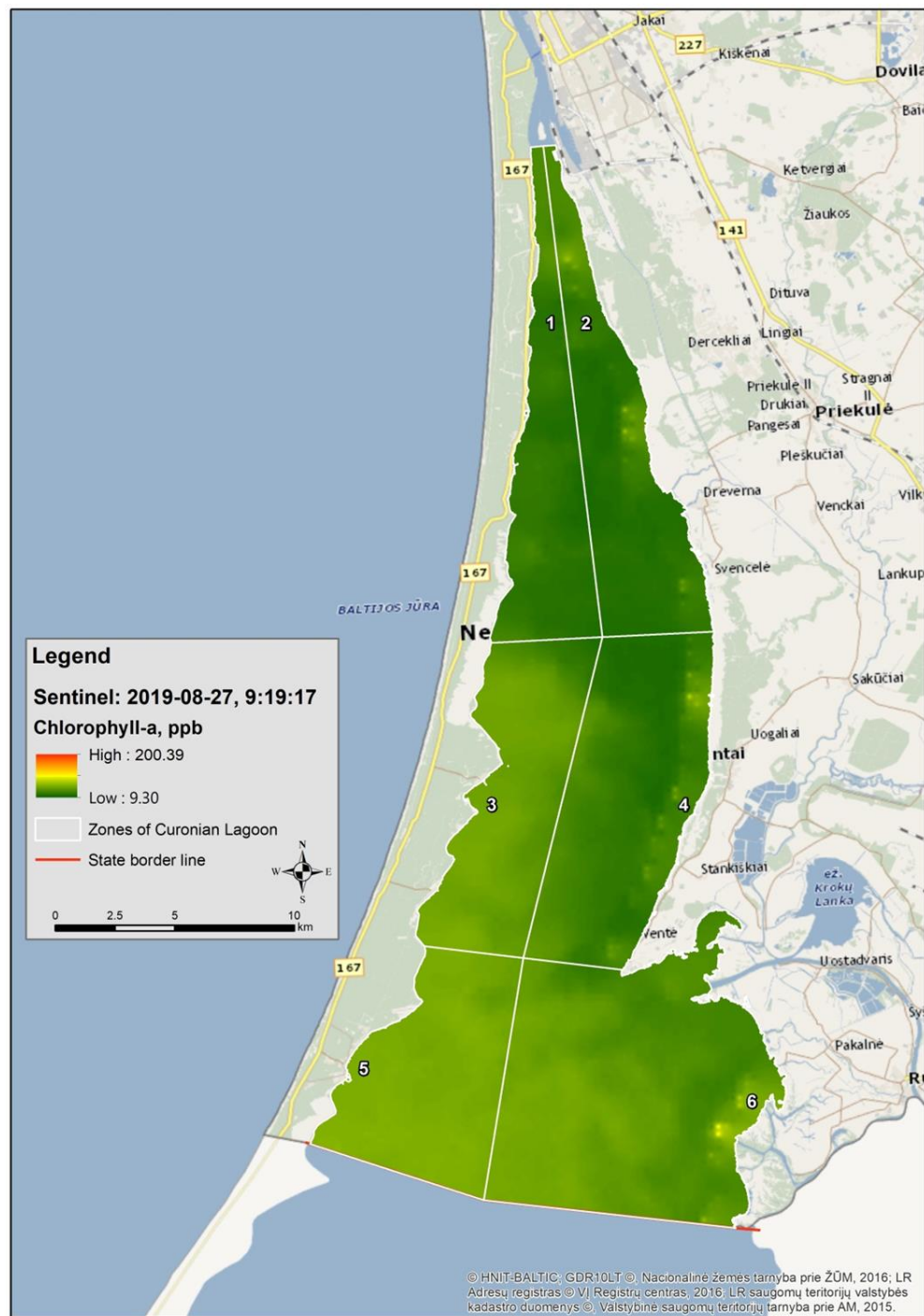


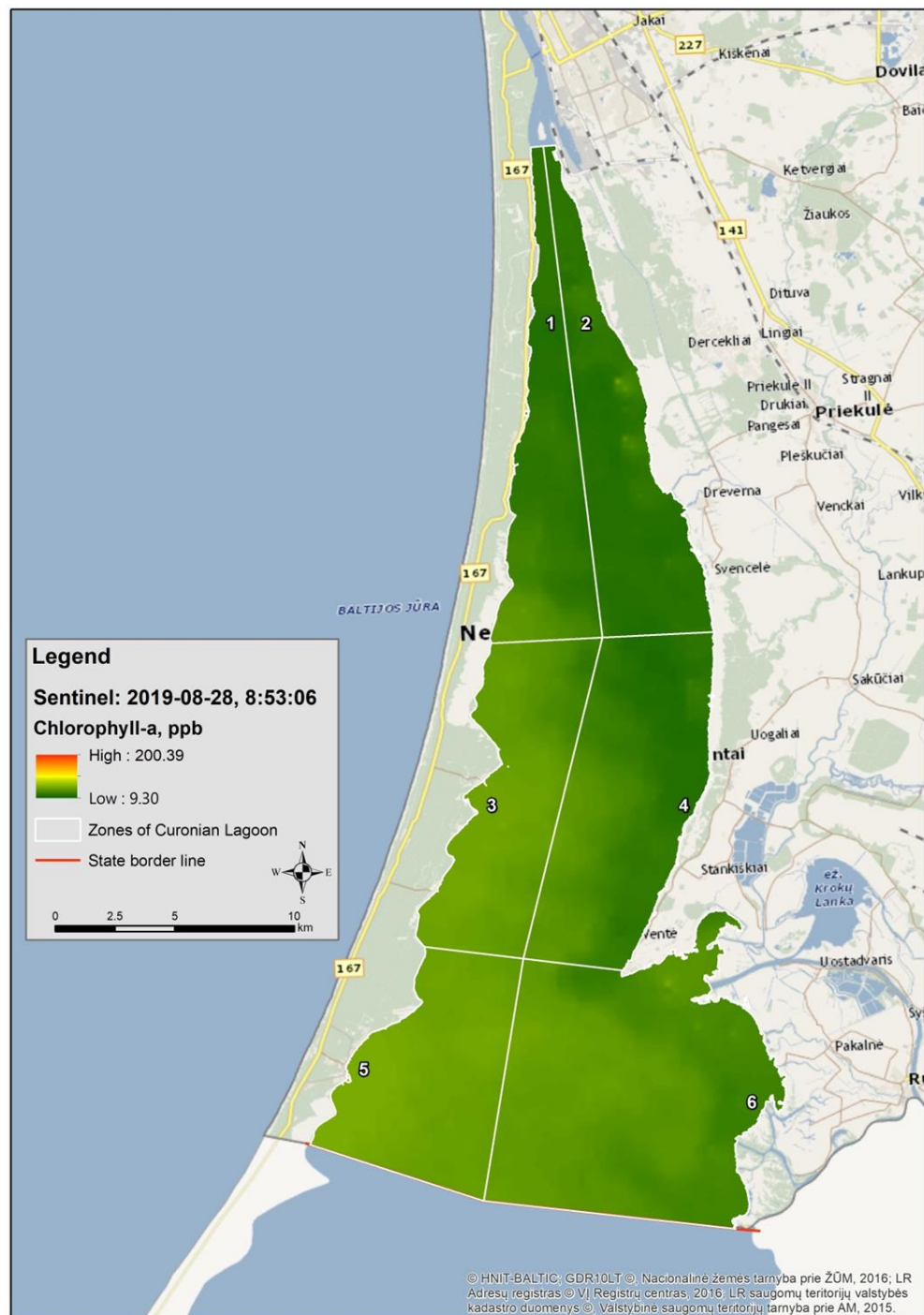


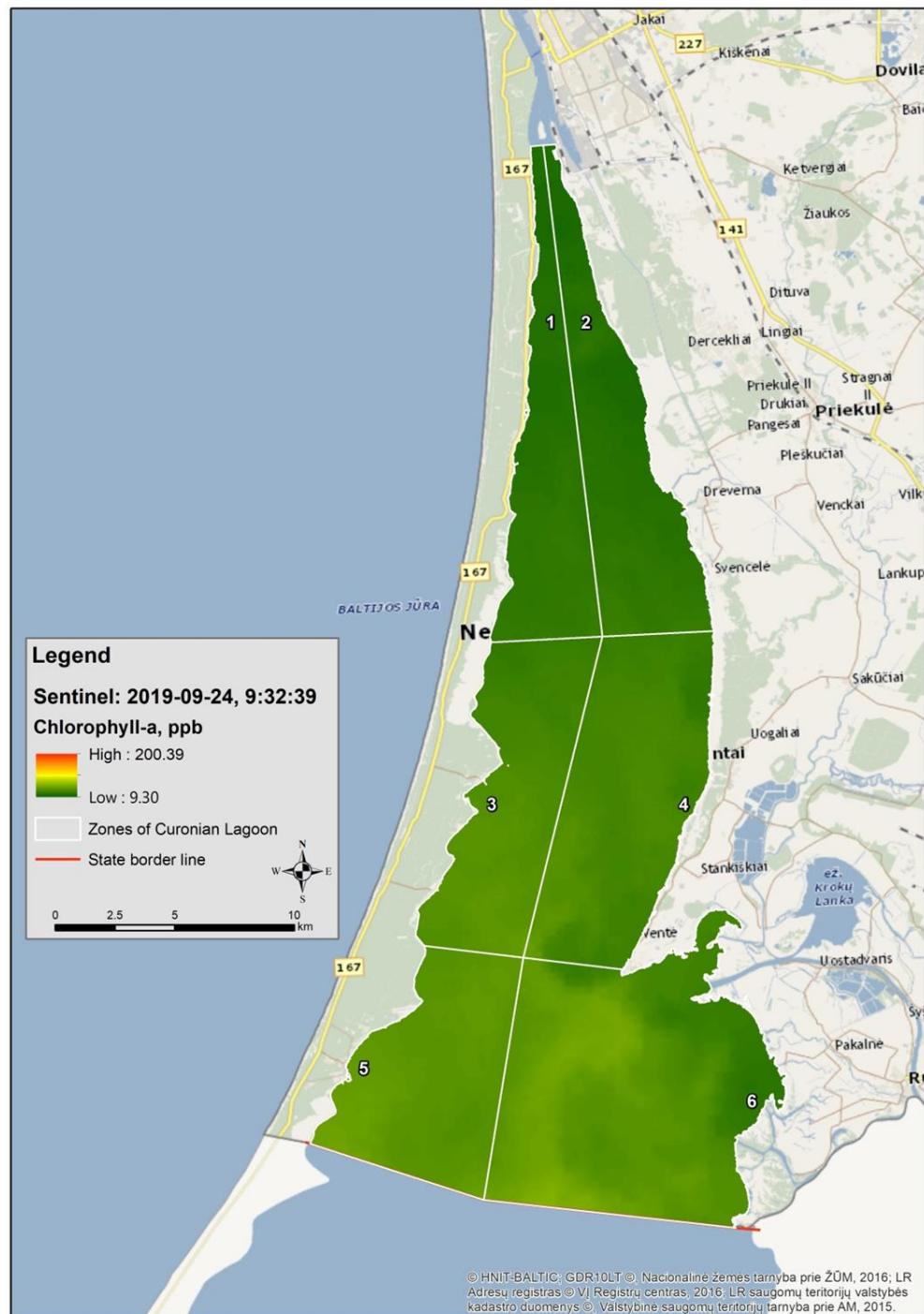


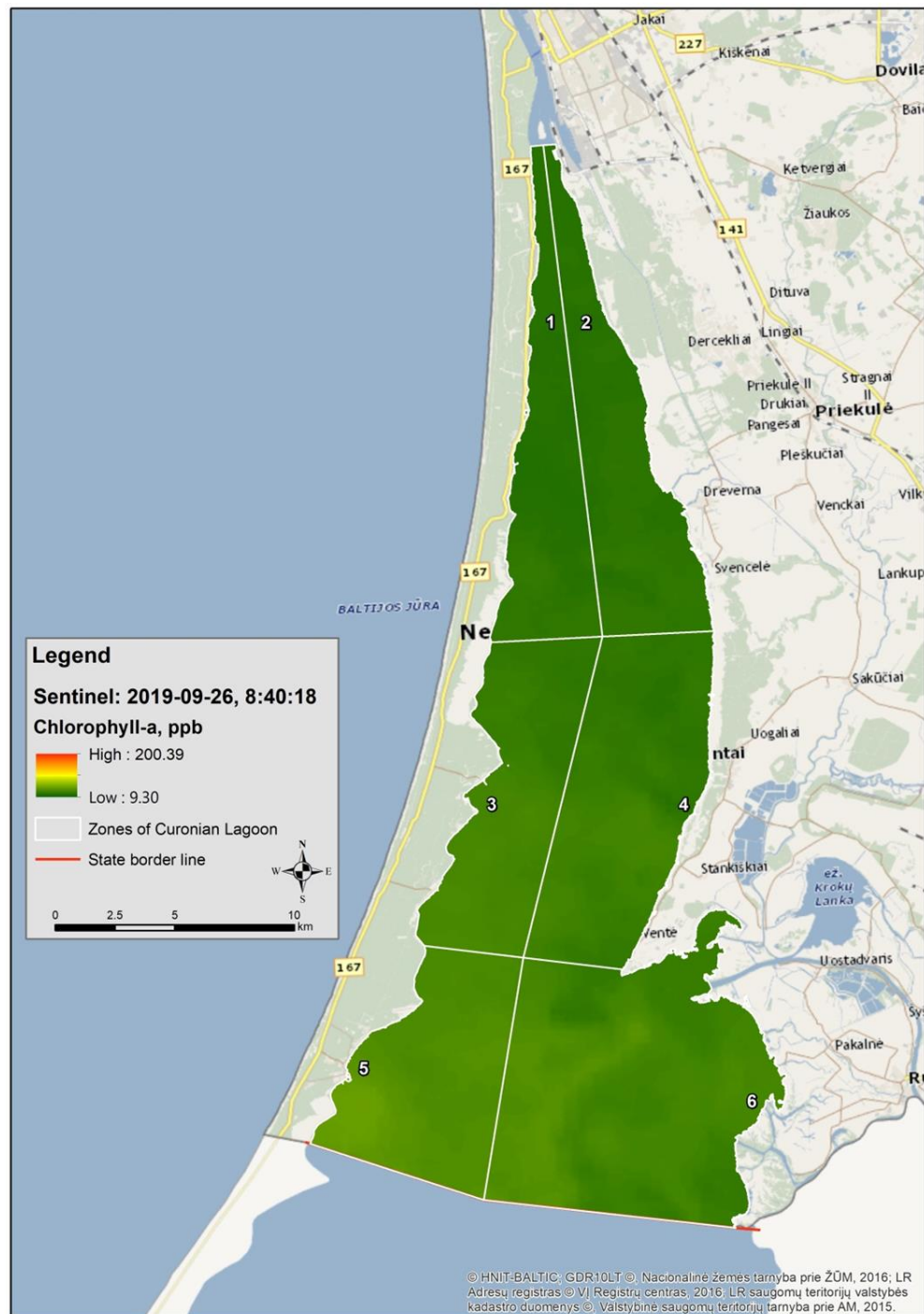


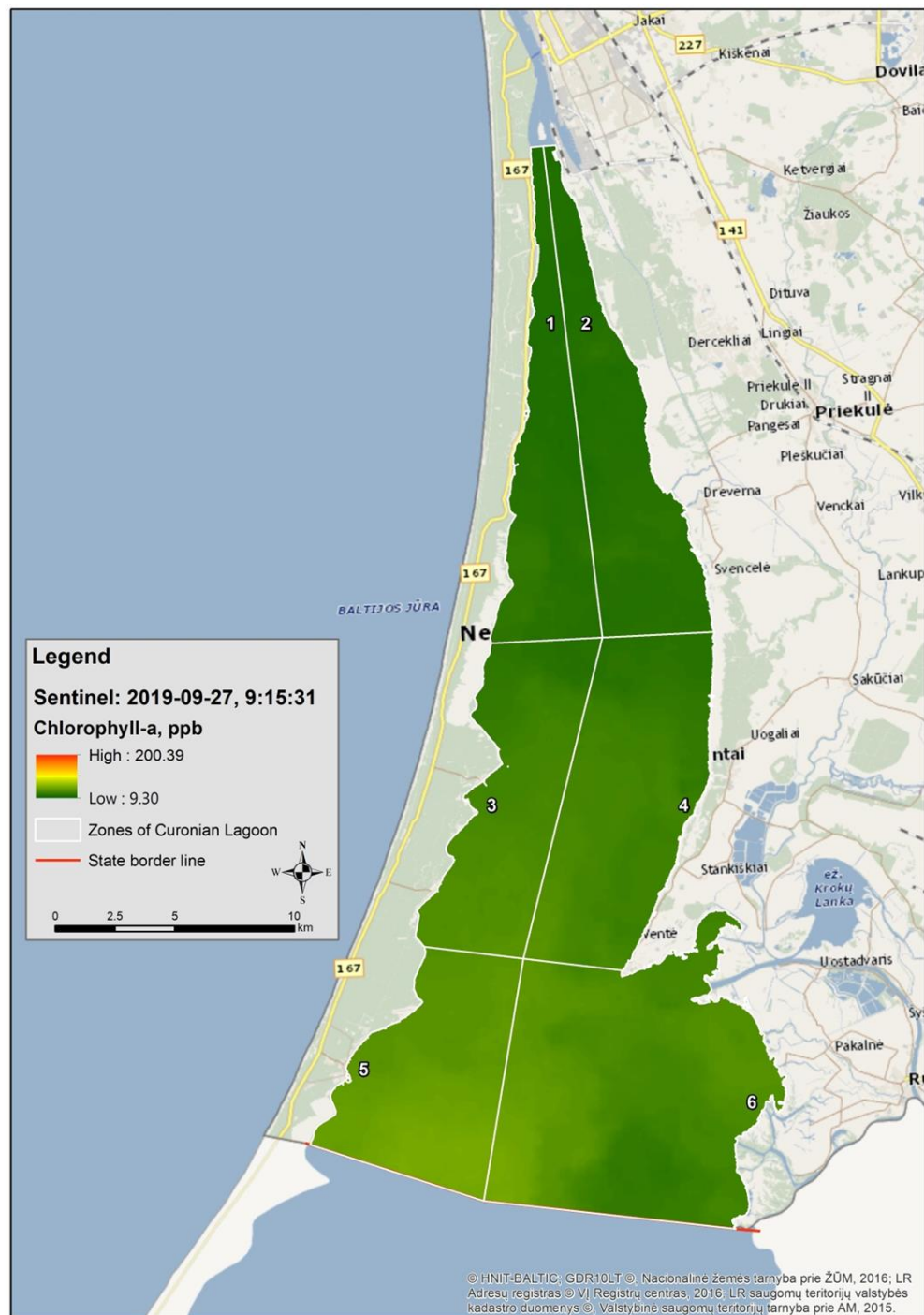












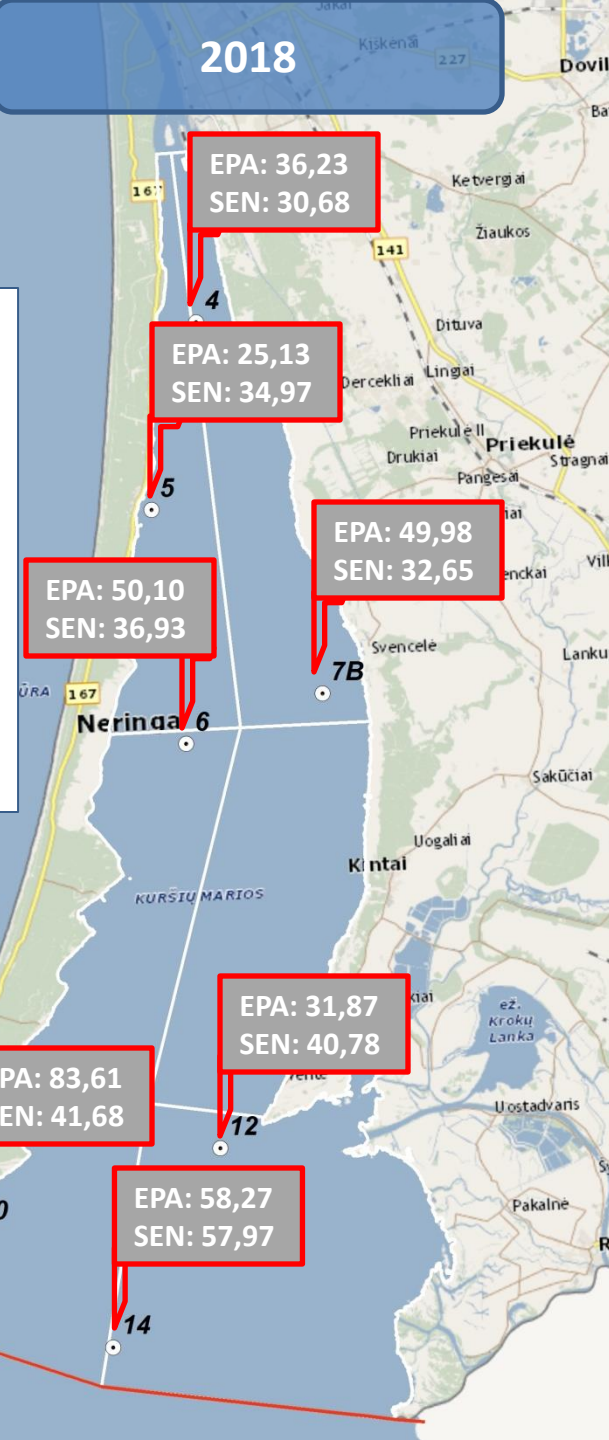
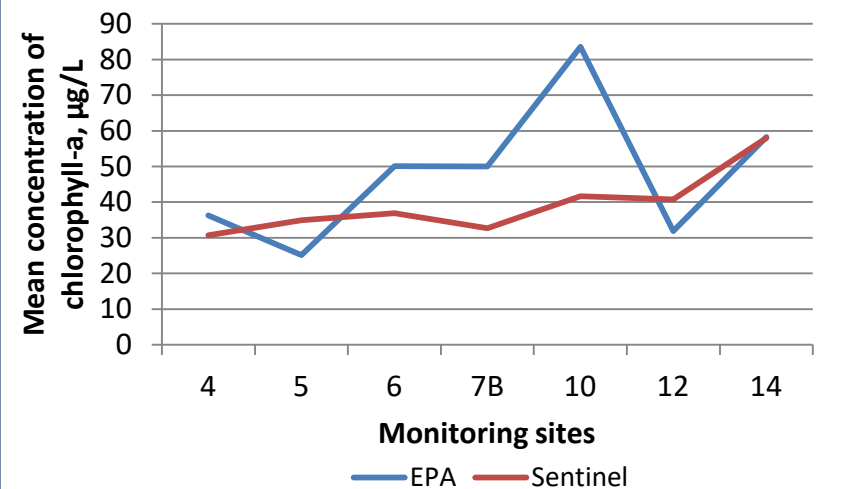
Legend

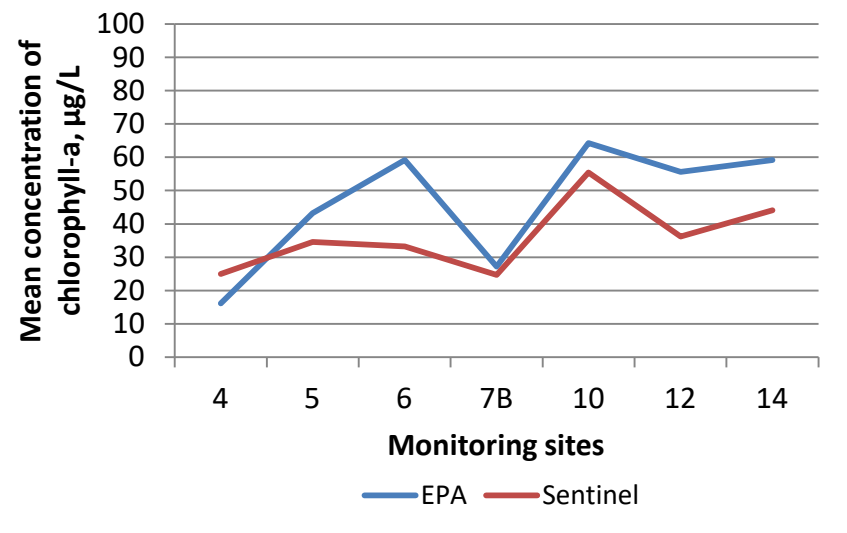
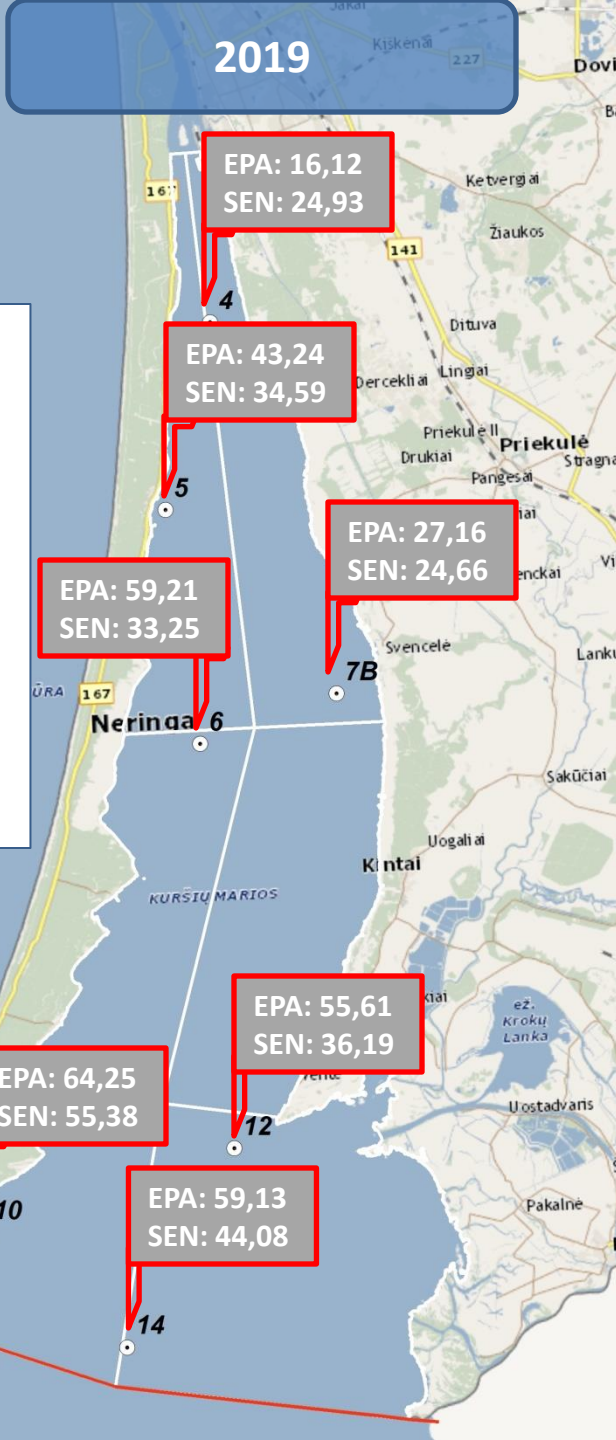
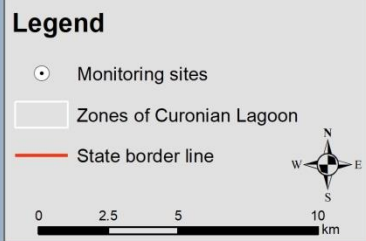
- Monitoring sites
- Zones of Curonian Lagoon
- State border line

0 2.5 5 10 km



2018







Thank You!