

Carl Gilljam  
Fjärranalysexpert

**Metodutveckling för marktäckekartering**

**Fjärranalys**

**Metodutveckling      marktäckekartering**

Fjärranalys | marktäckekartering | Metodutveckling

och lite om golfbanor...

← ökande energinivå  
ökande våglängd →

gamma	röntgen	uv		infrarött	radar	FM	TV	kortvåg	AM
-------	---------	----	---	-----------	-------	----	----	---------	----

< 0.1 nm

> 1000 m



← ökande energinivå  
ökande våglängd →



< 0.1 nm

> 1000 m



400 nm

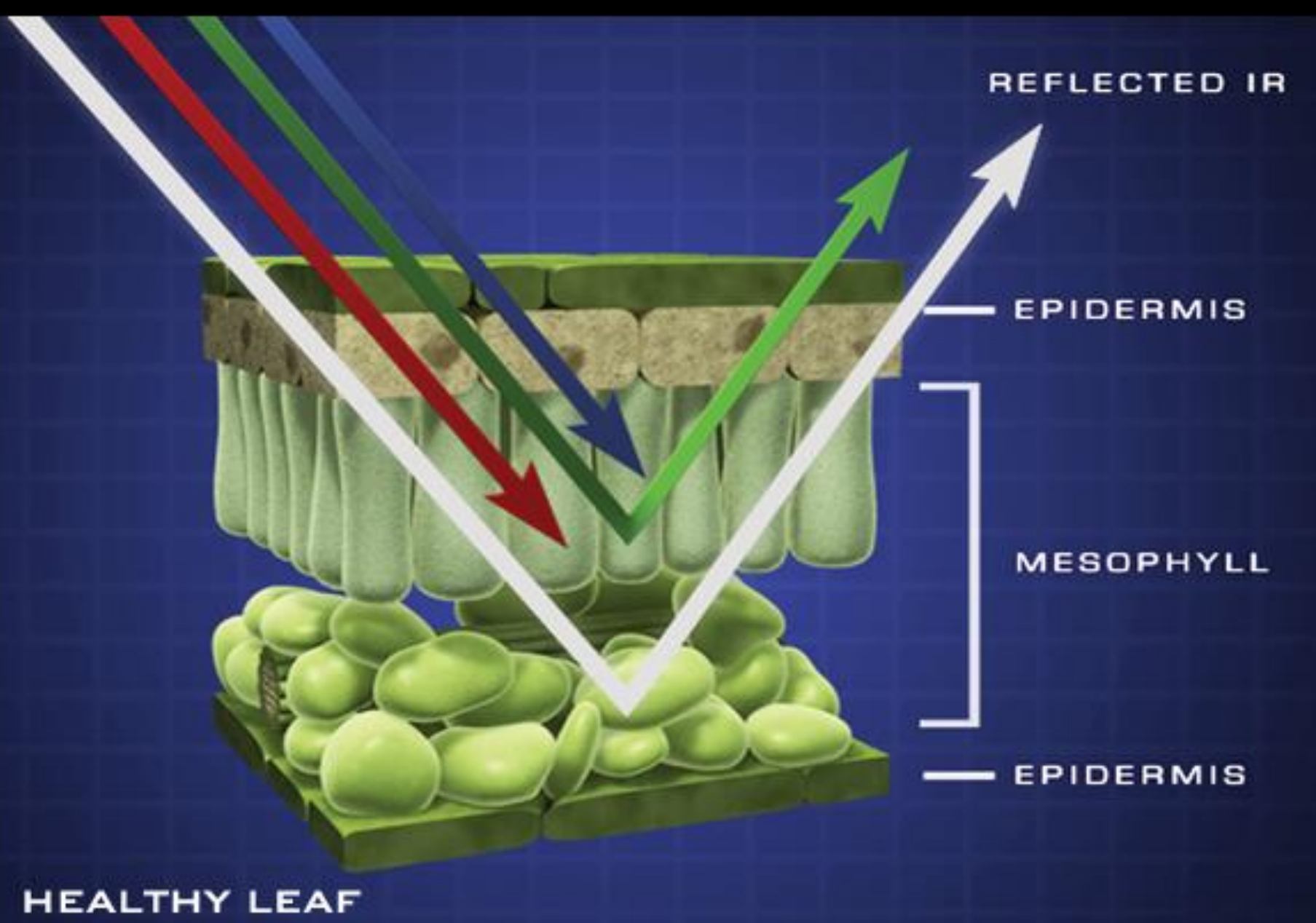
700 nm

M16 ■ Eagle Nebula

Hubble Space Telescope ■ WFC3/UVIS/IR



Visible



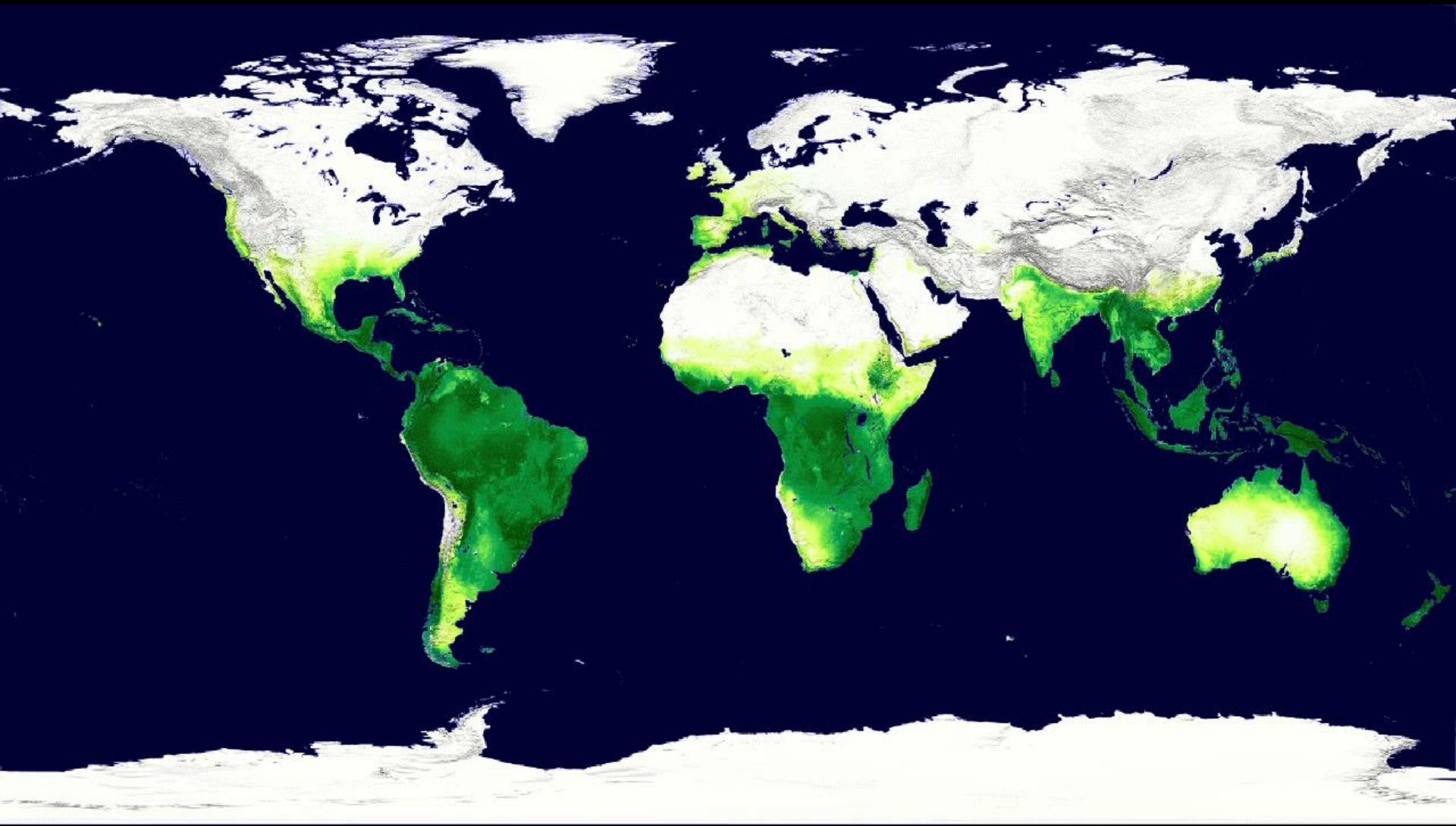
REFLECTED IR

EPIDERMIS

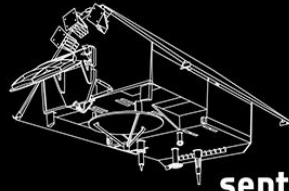
MESOPHYLL

EPIDERMIS

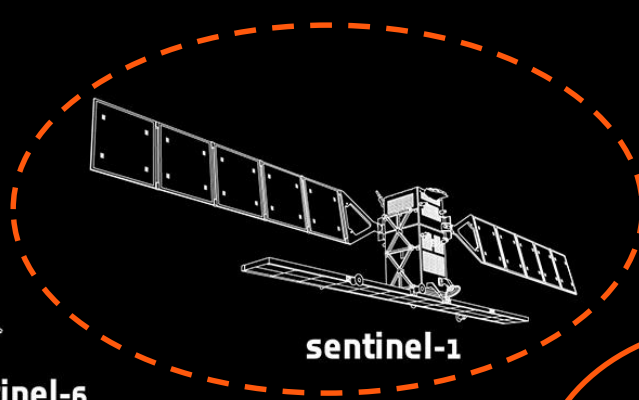
HEALTHY LEAF



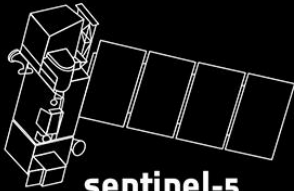




**sentinel-6**



**sentinel-1**



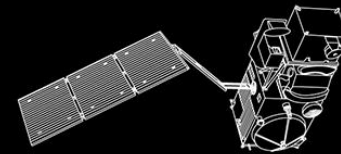
**sentinel-5**



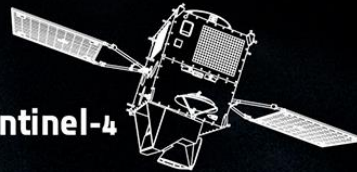
**sentinel-2**



**sentinel-5p**

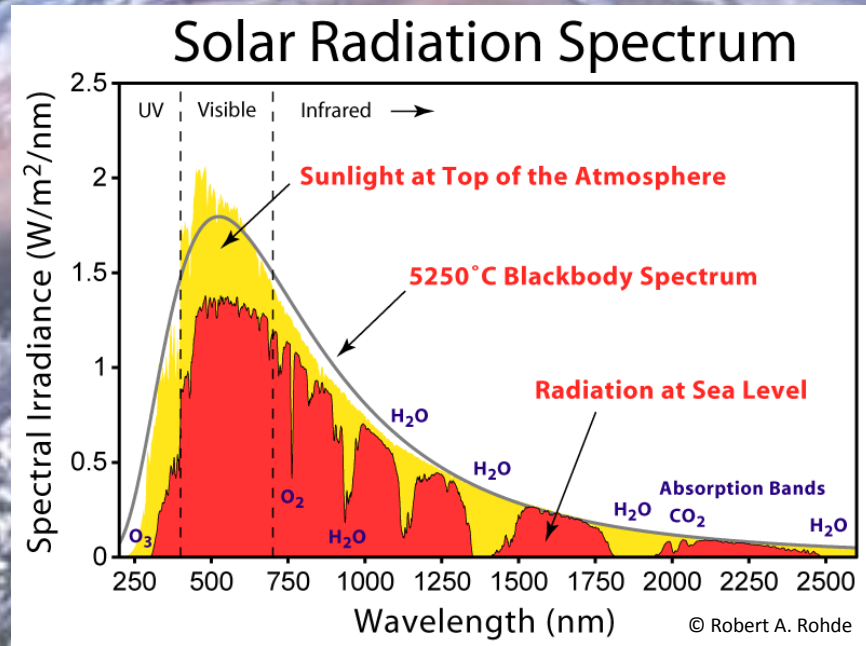
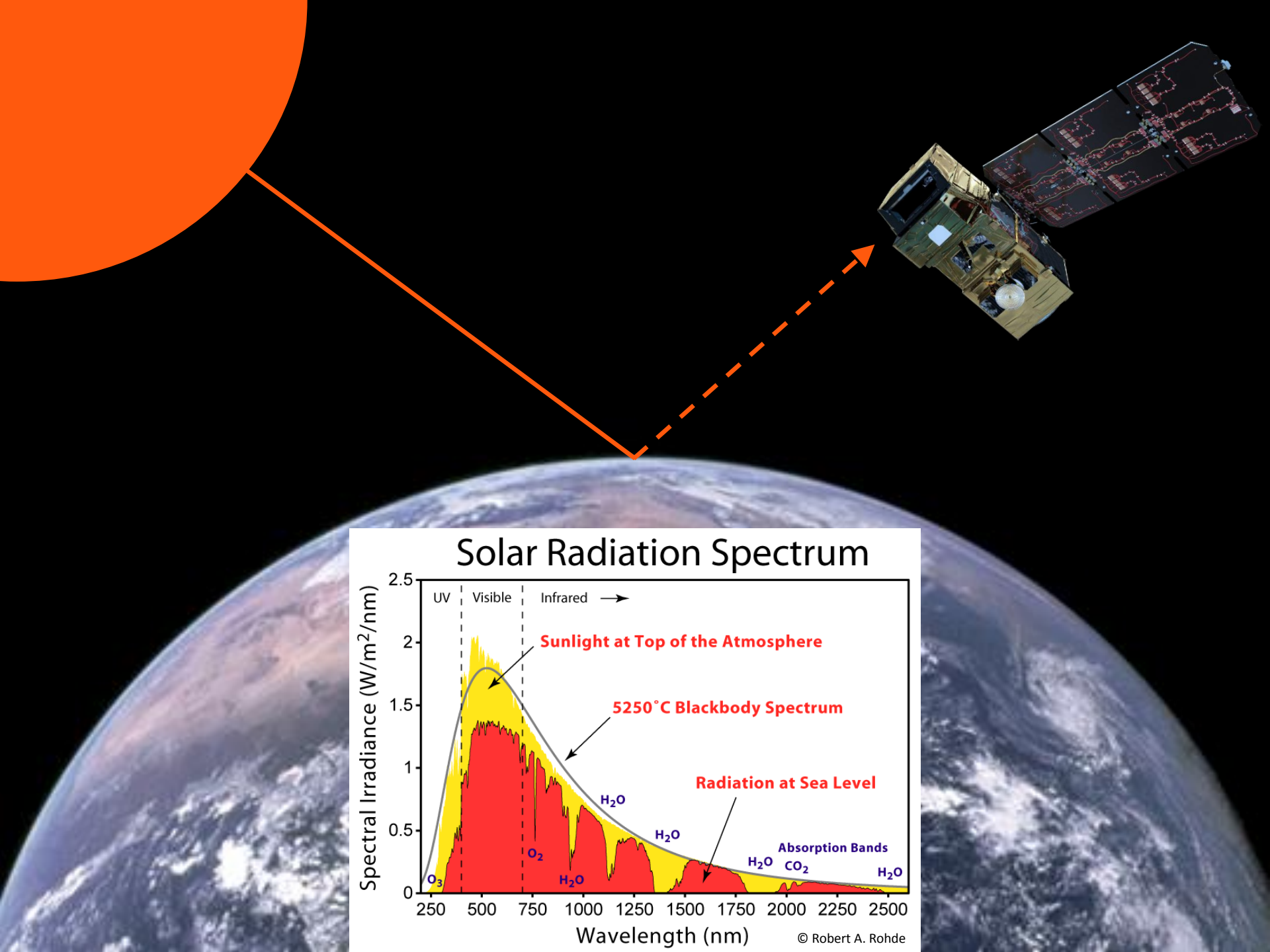


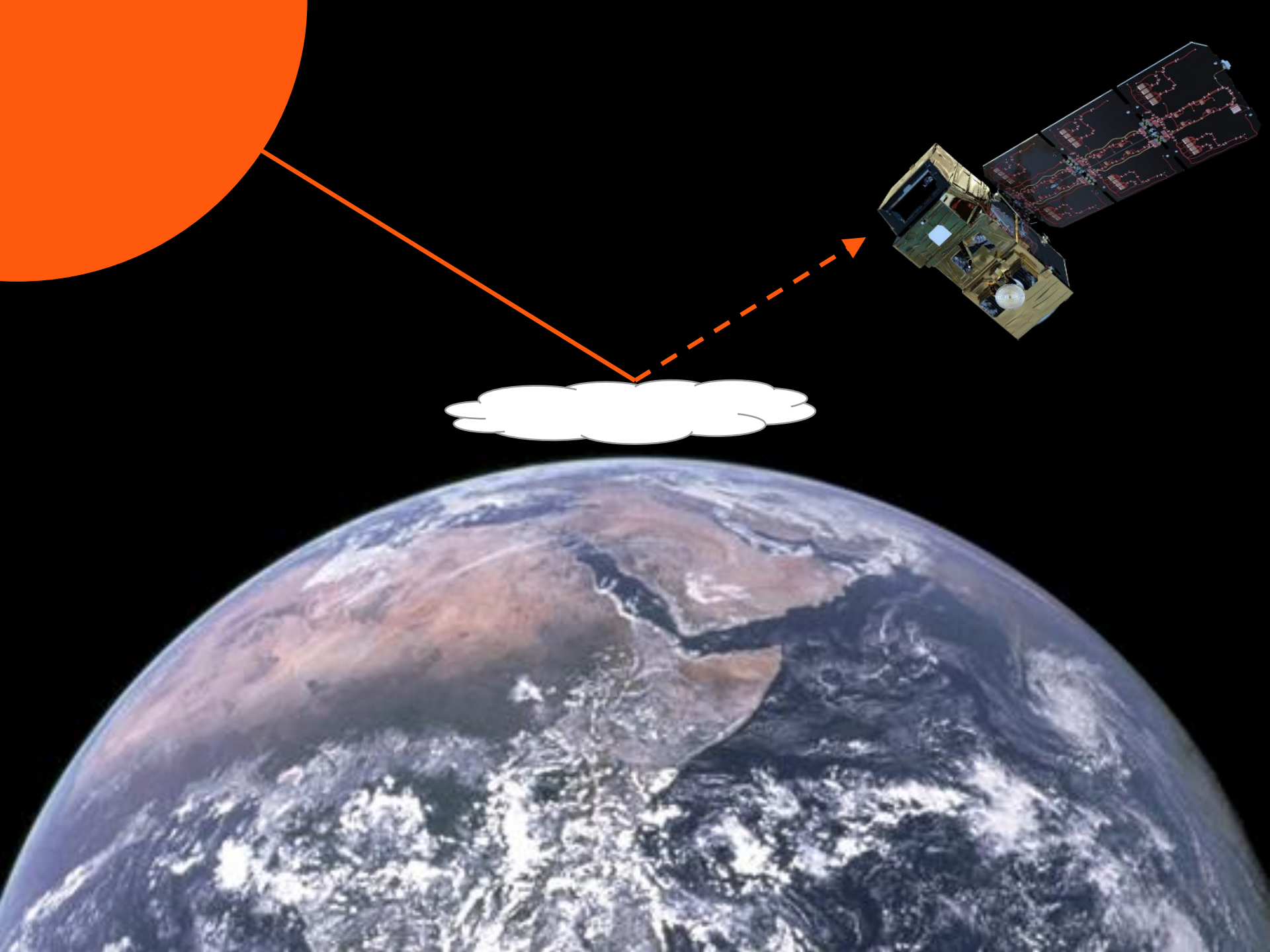
**sentinel-3**

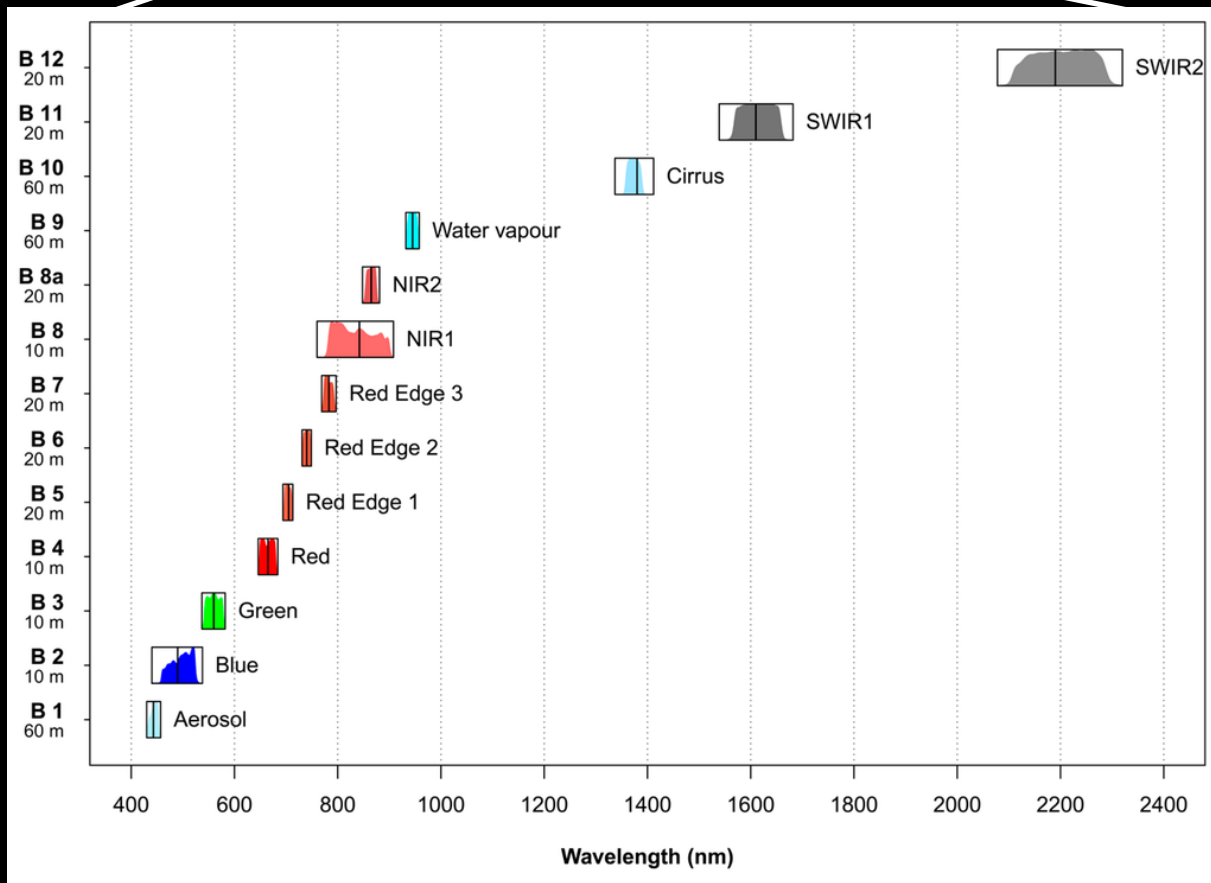
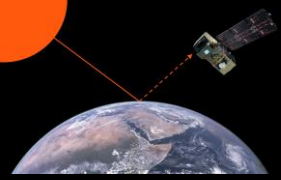


**sentinel-4**



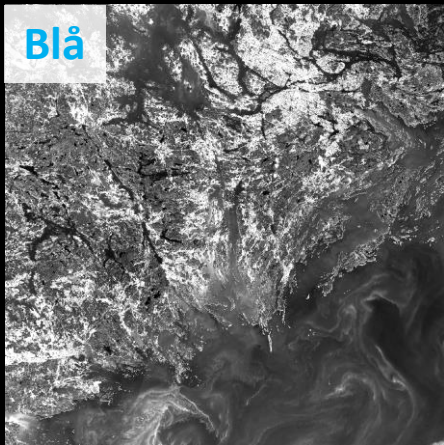




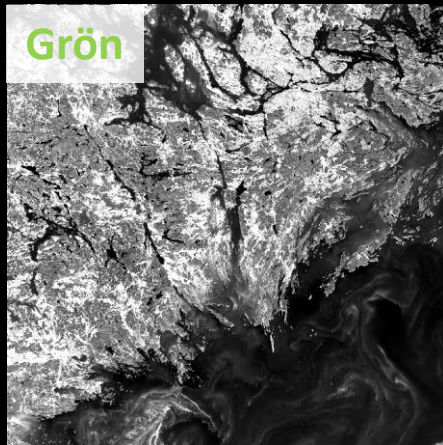




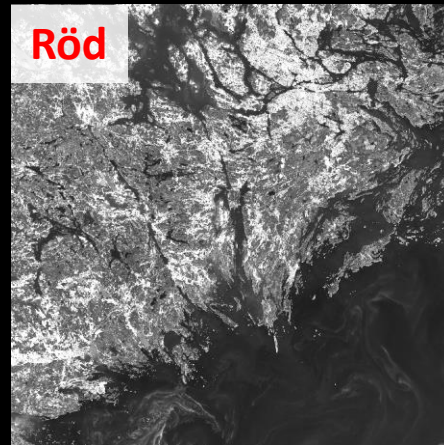
Blå



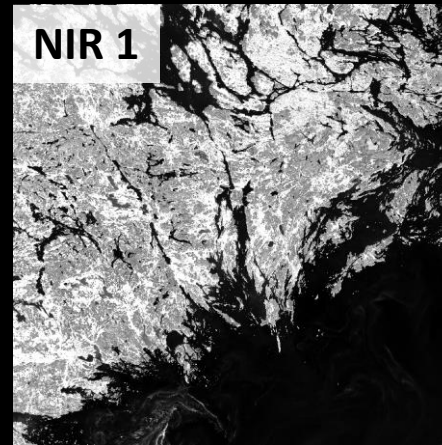
Grön



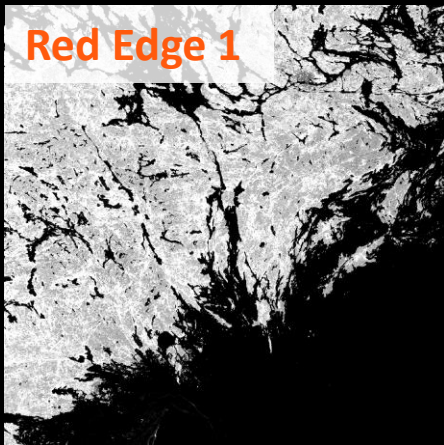
Röd



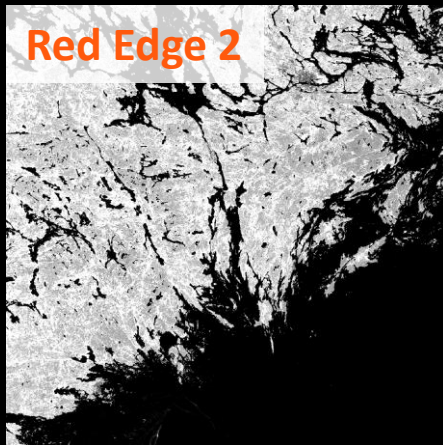
NIR 1



Red Edge 1



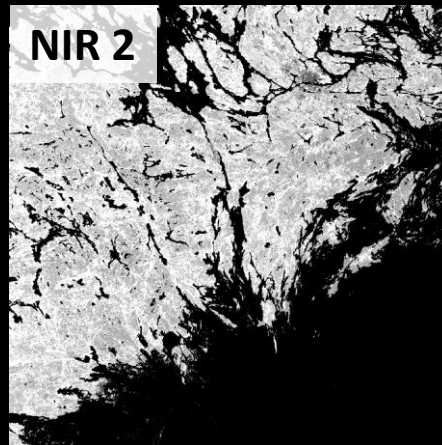
Red Edge 2



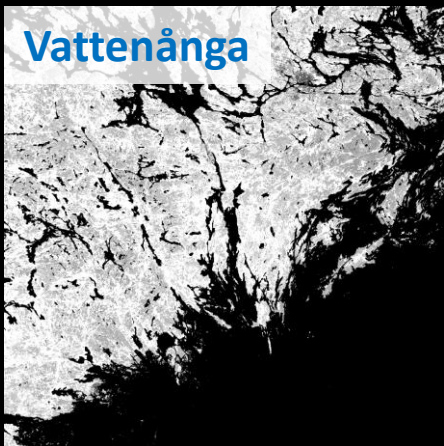
Red Edge 3



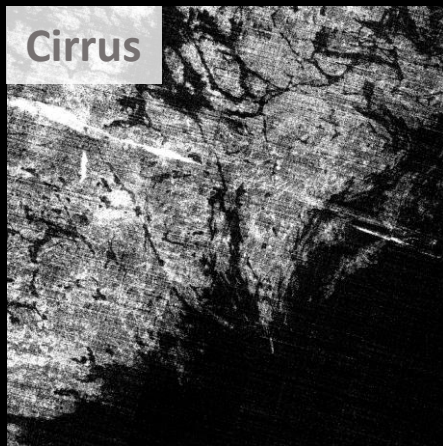
NIR 2



Vattenånga



Cirrus



SWIR 1



SWIR 2

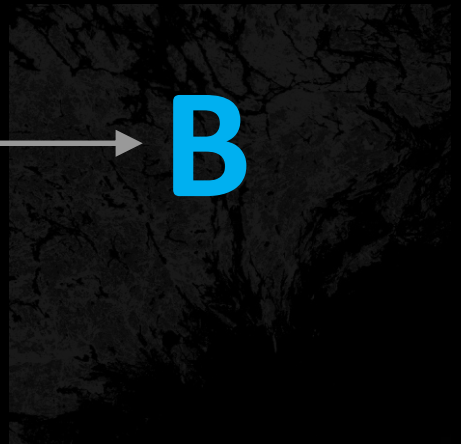
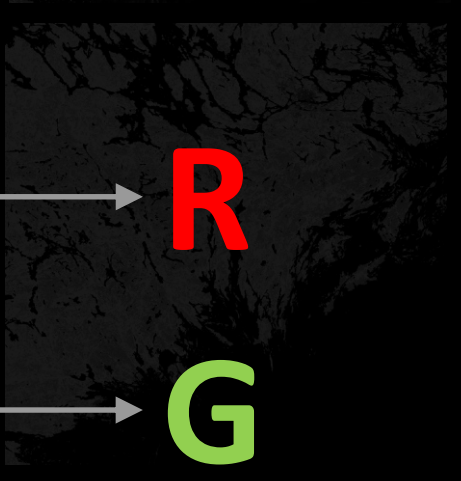
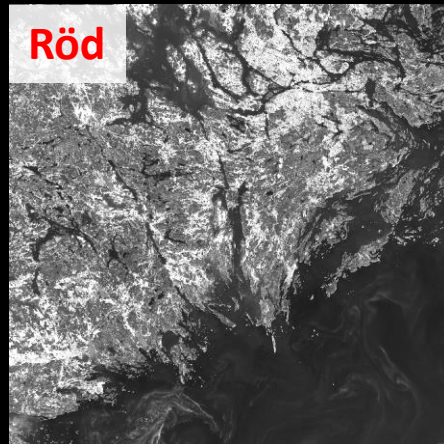
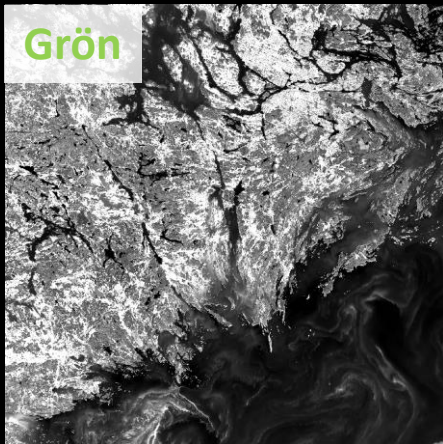
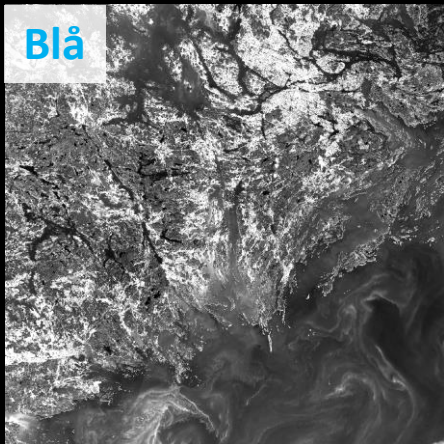




Blå

Grön

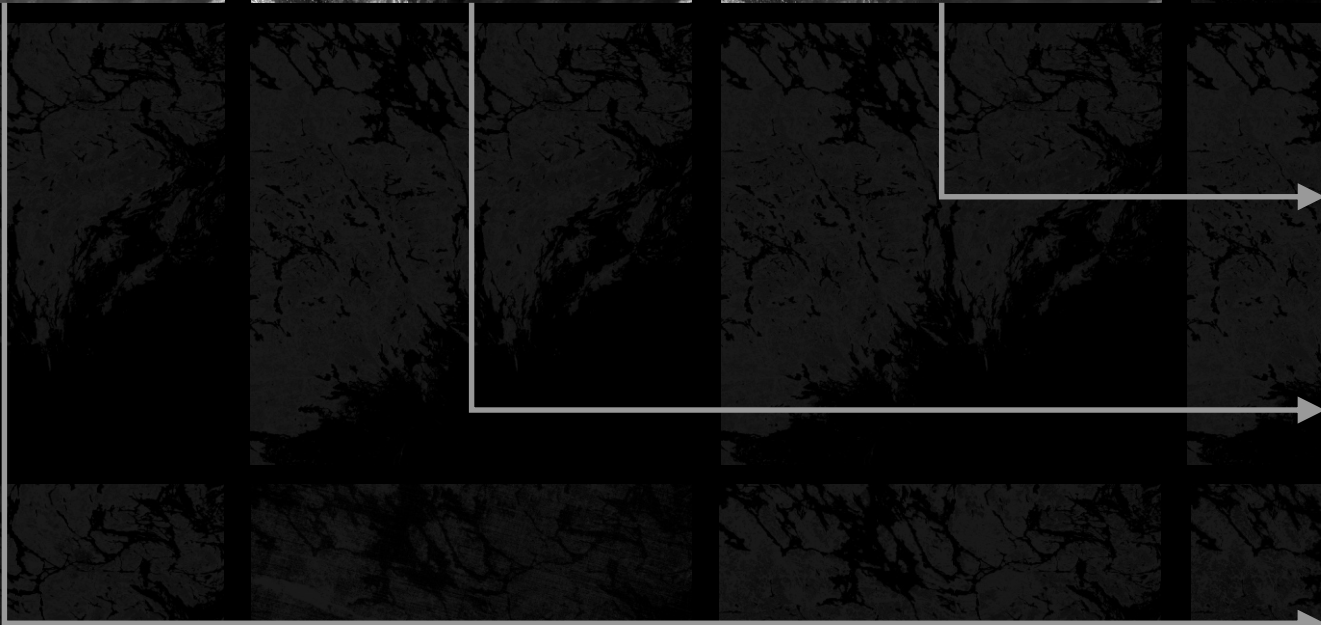
Röd



R

G

B





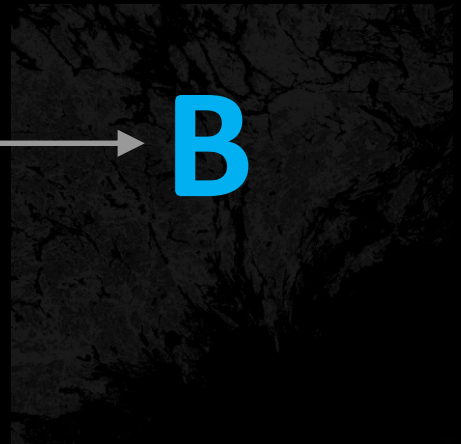
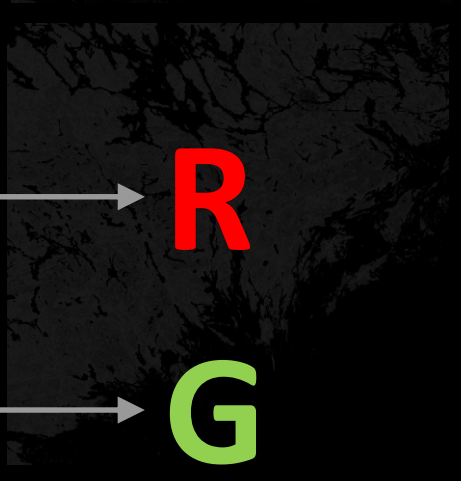
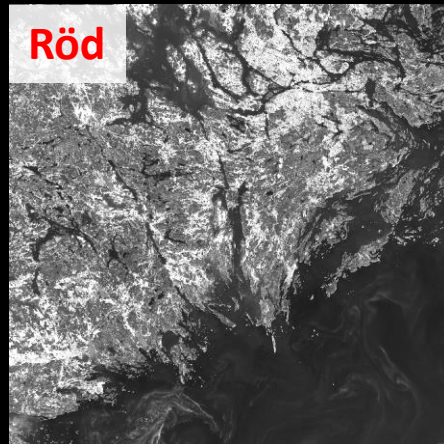
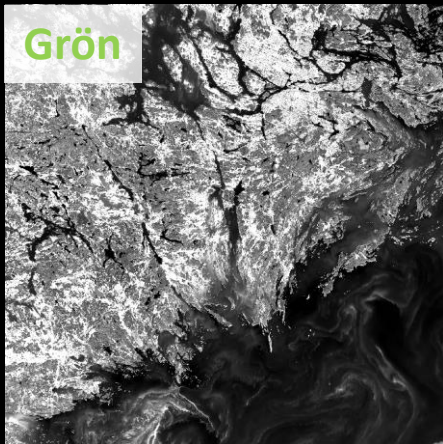
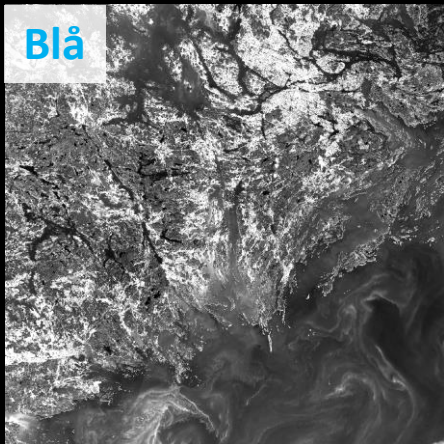




Blå

Grön

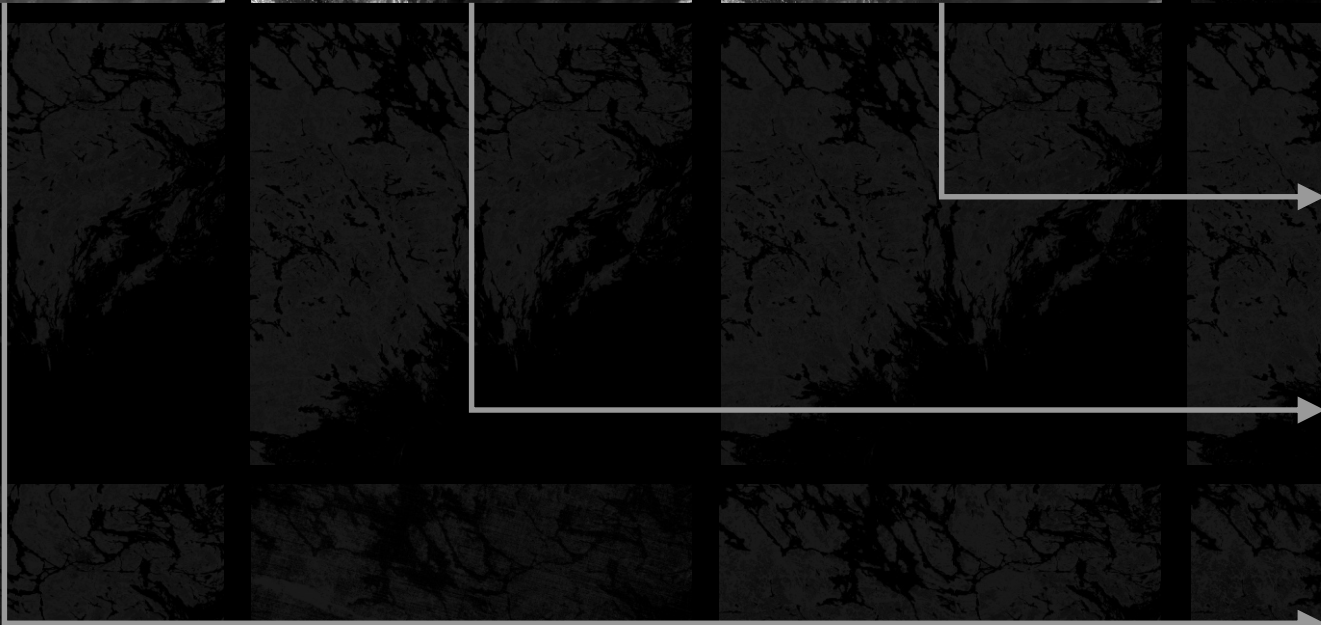
Röd



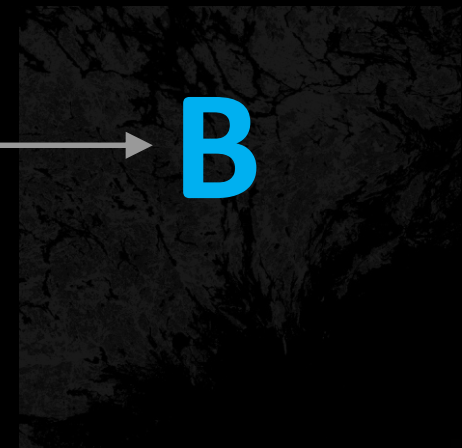
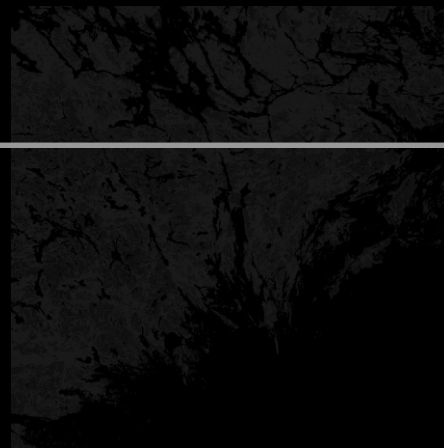
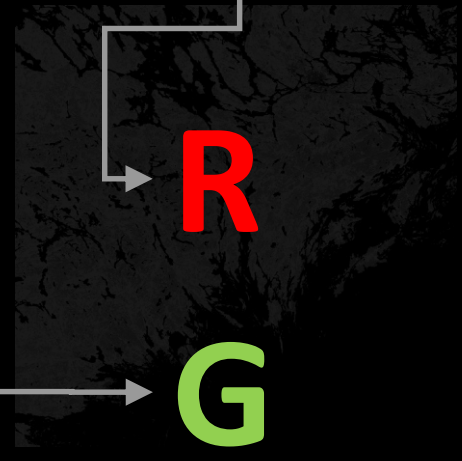
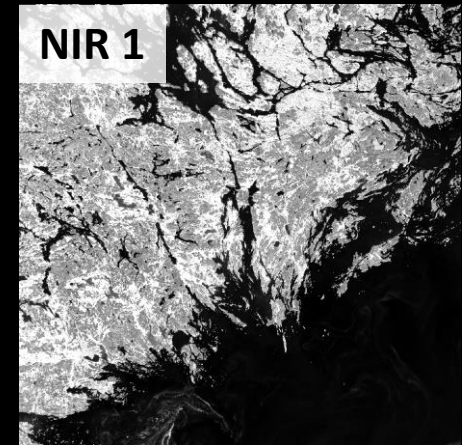
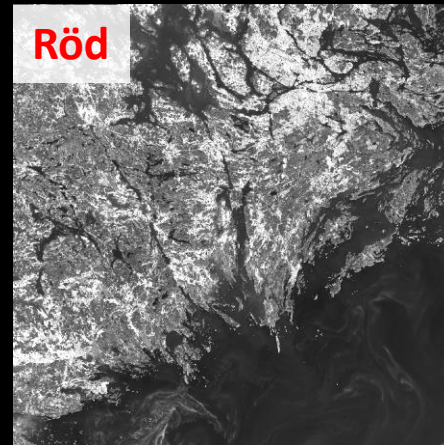
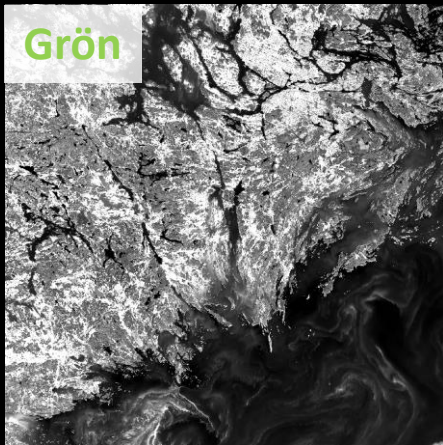
R

G

B



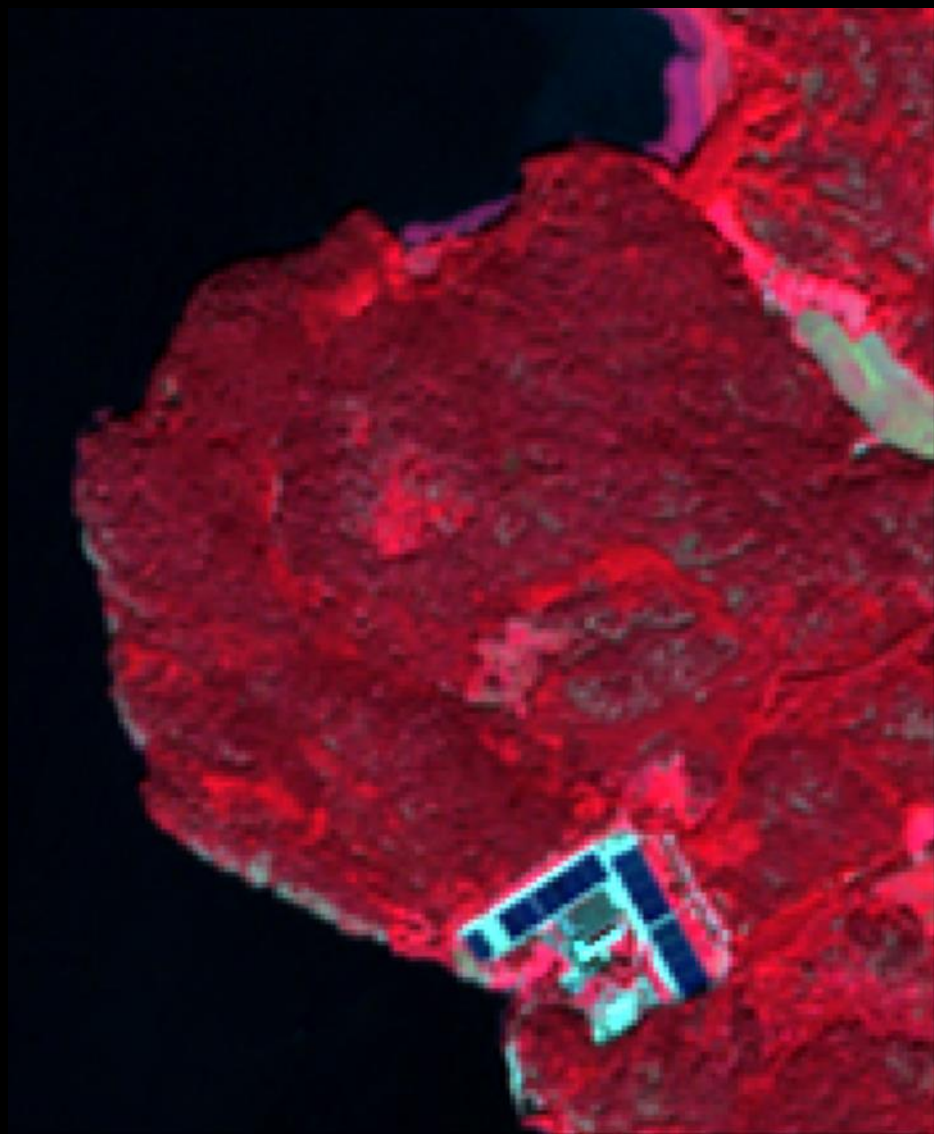
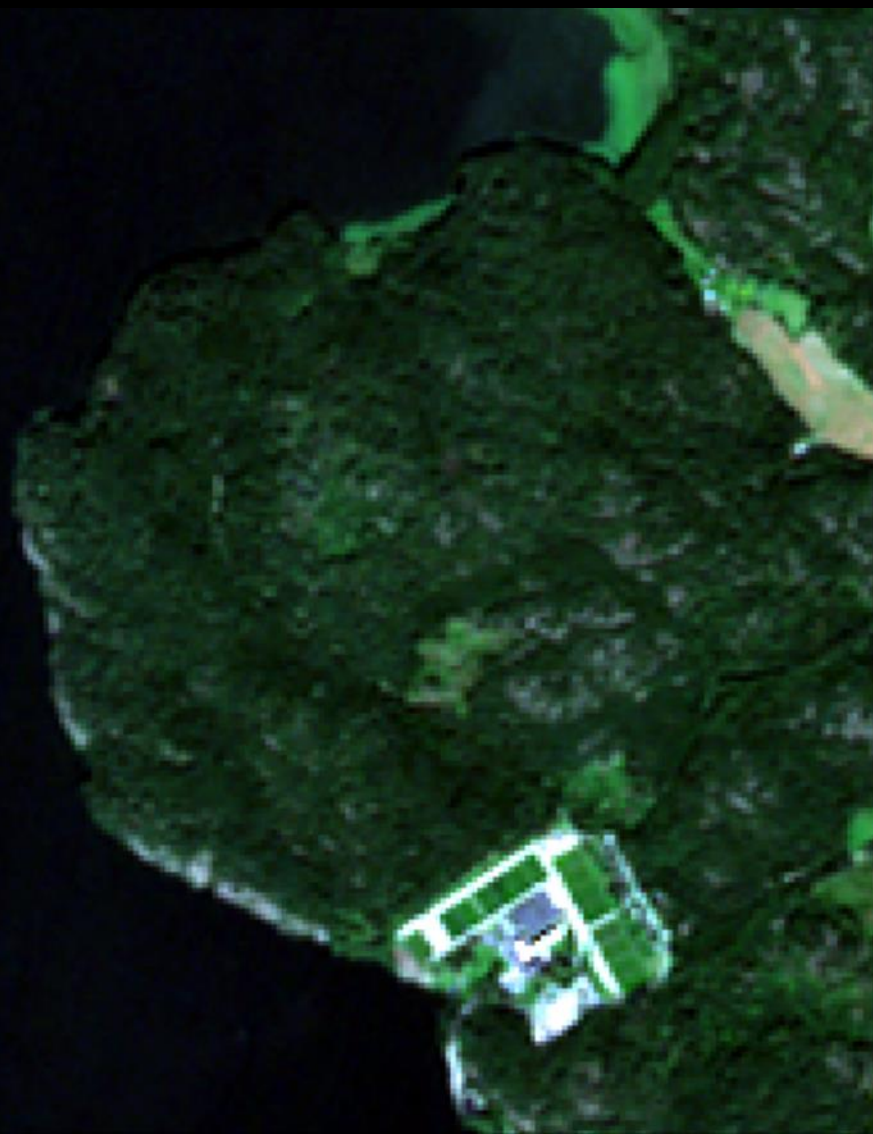






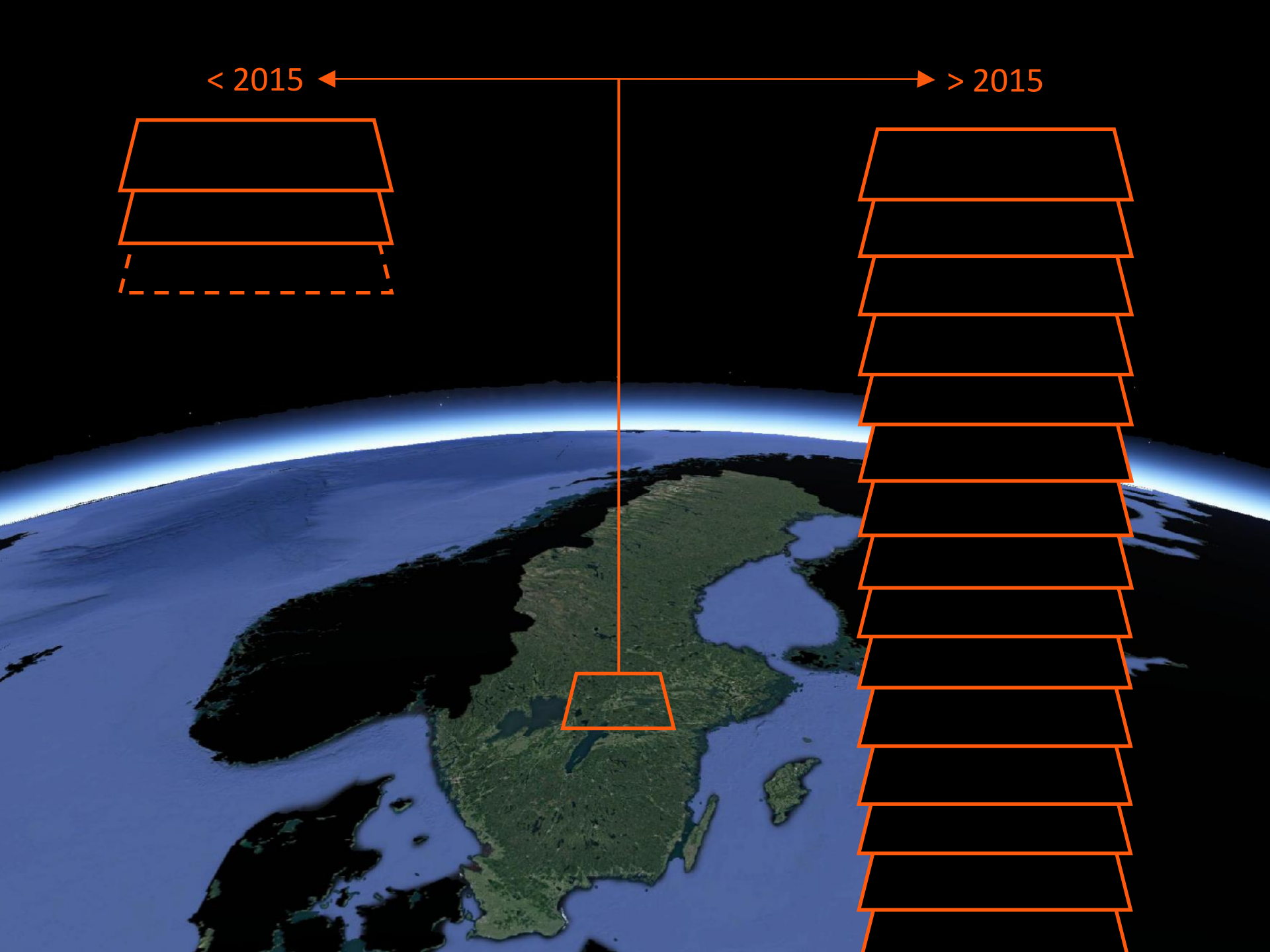
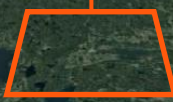
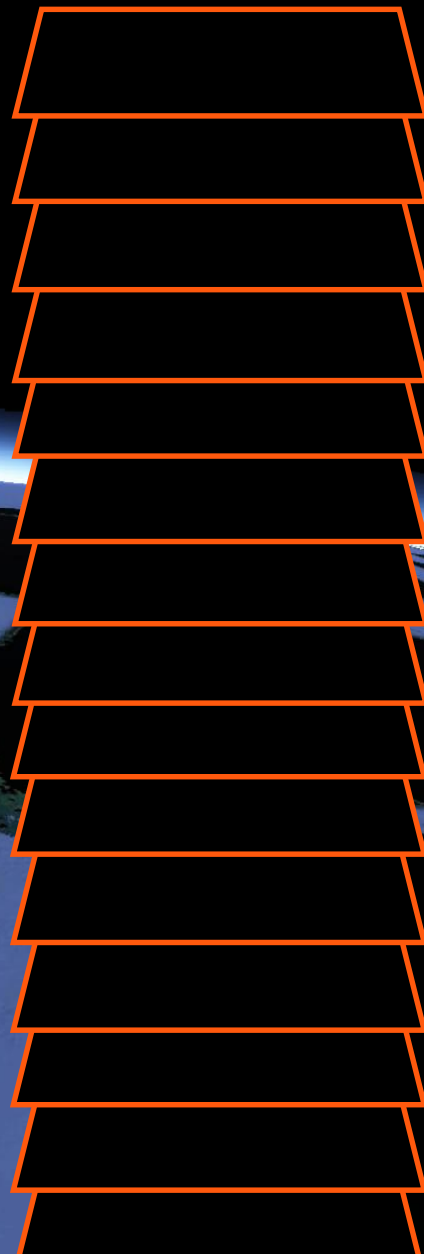






< 2015

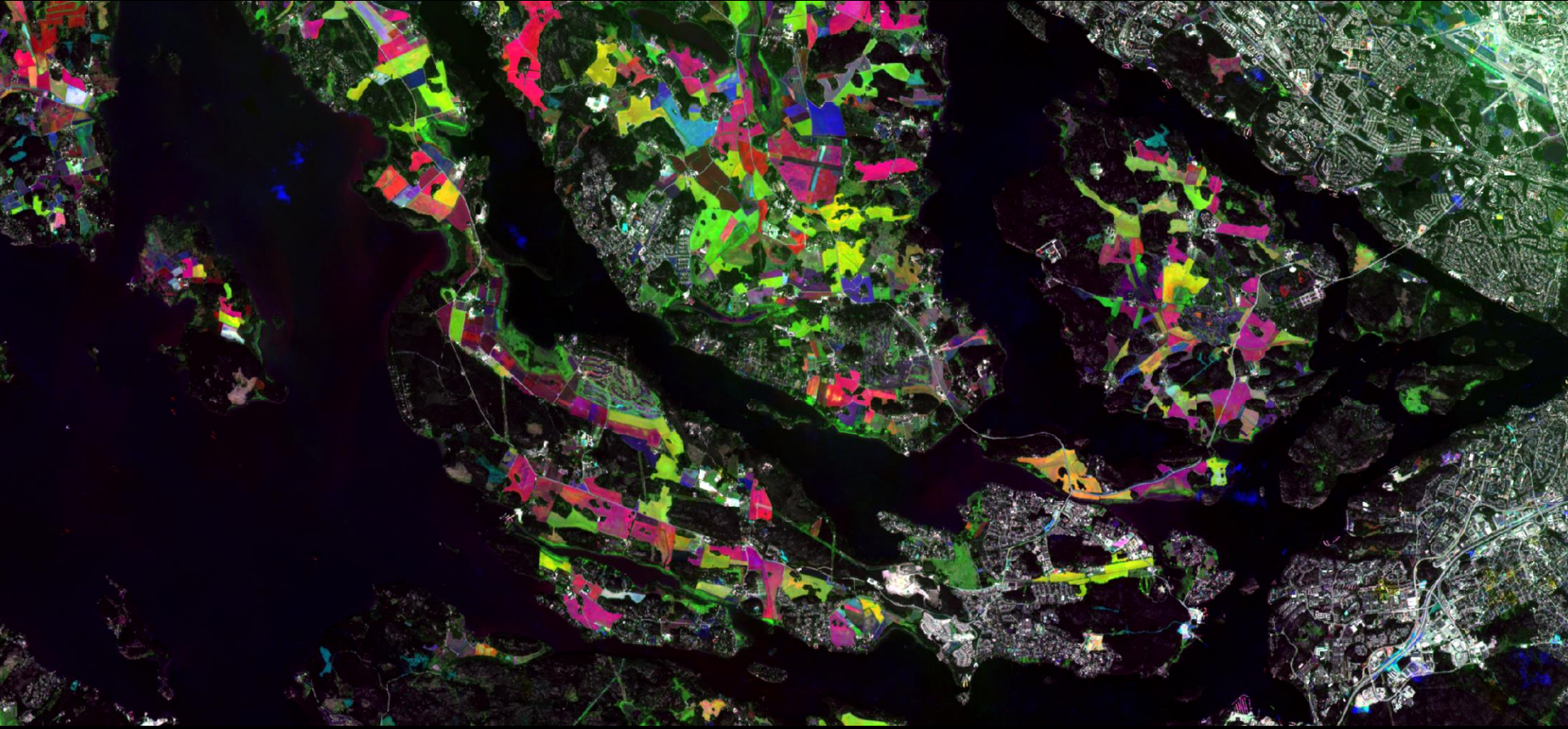
> 2015













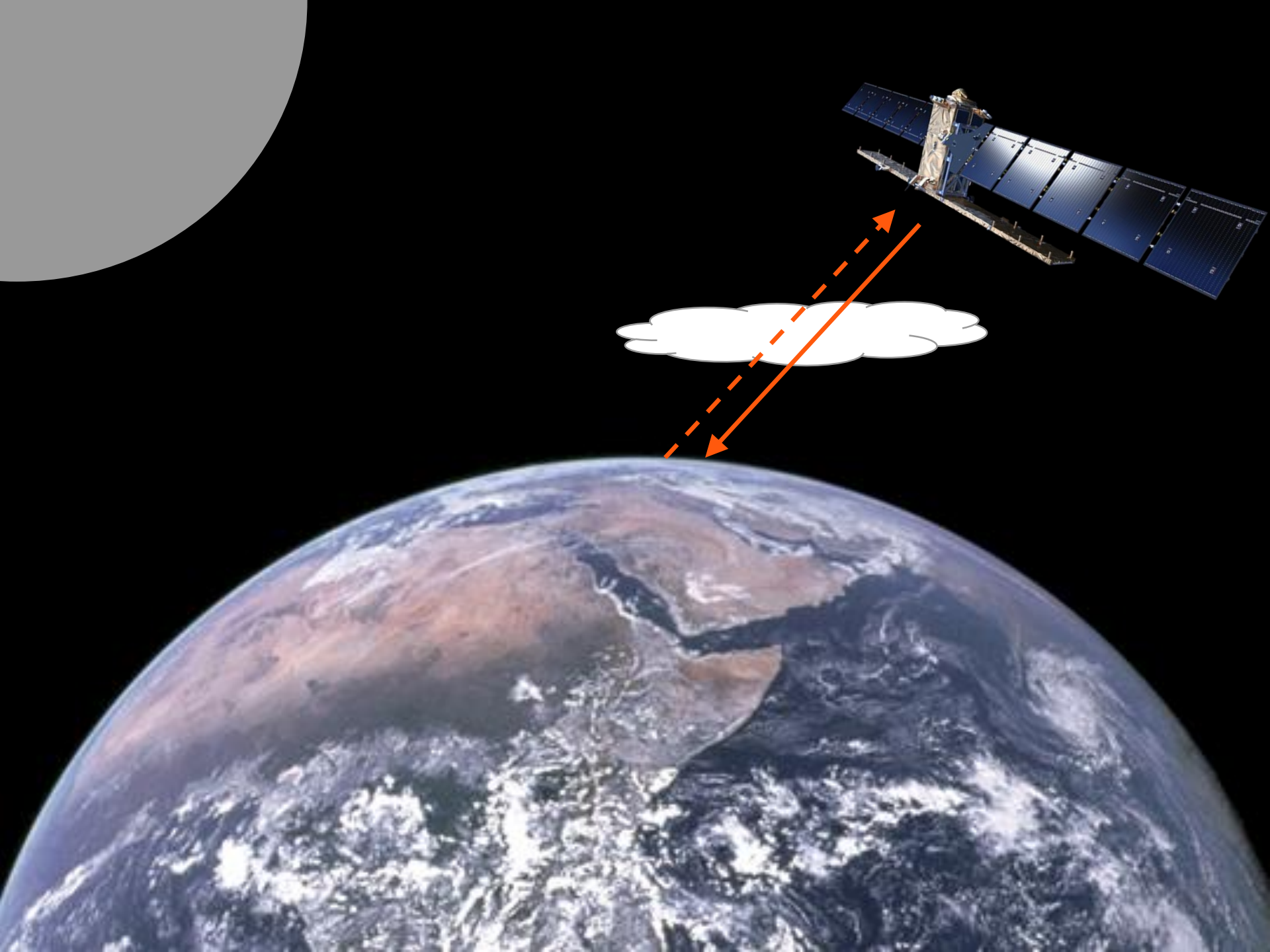


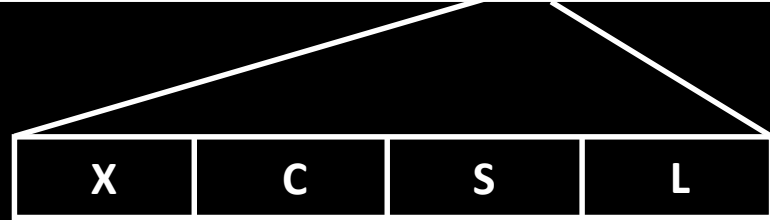
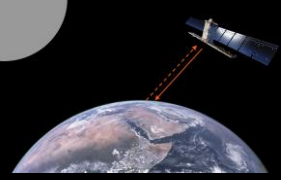






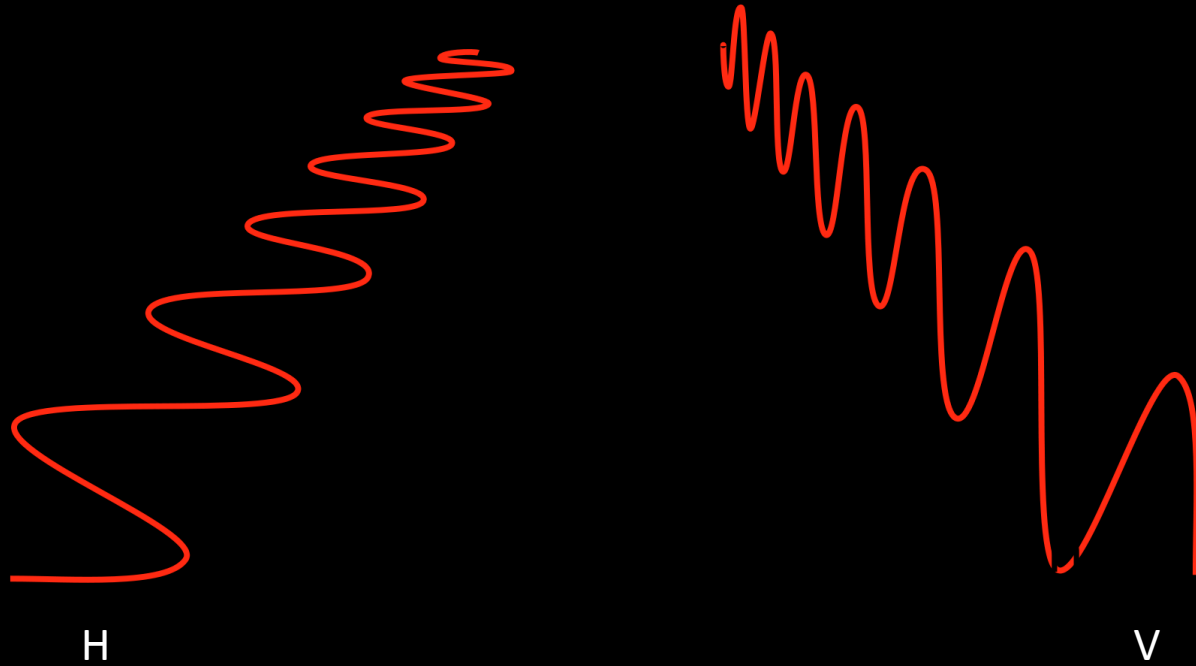






2.5 cm

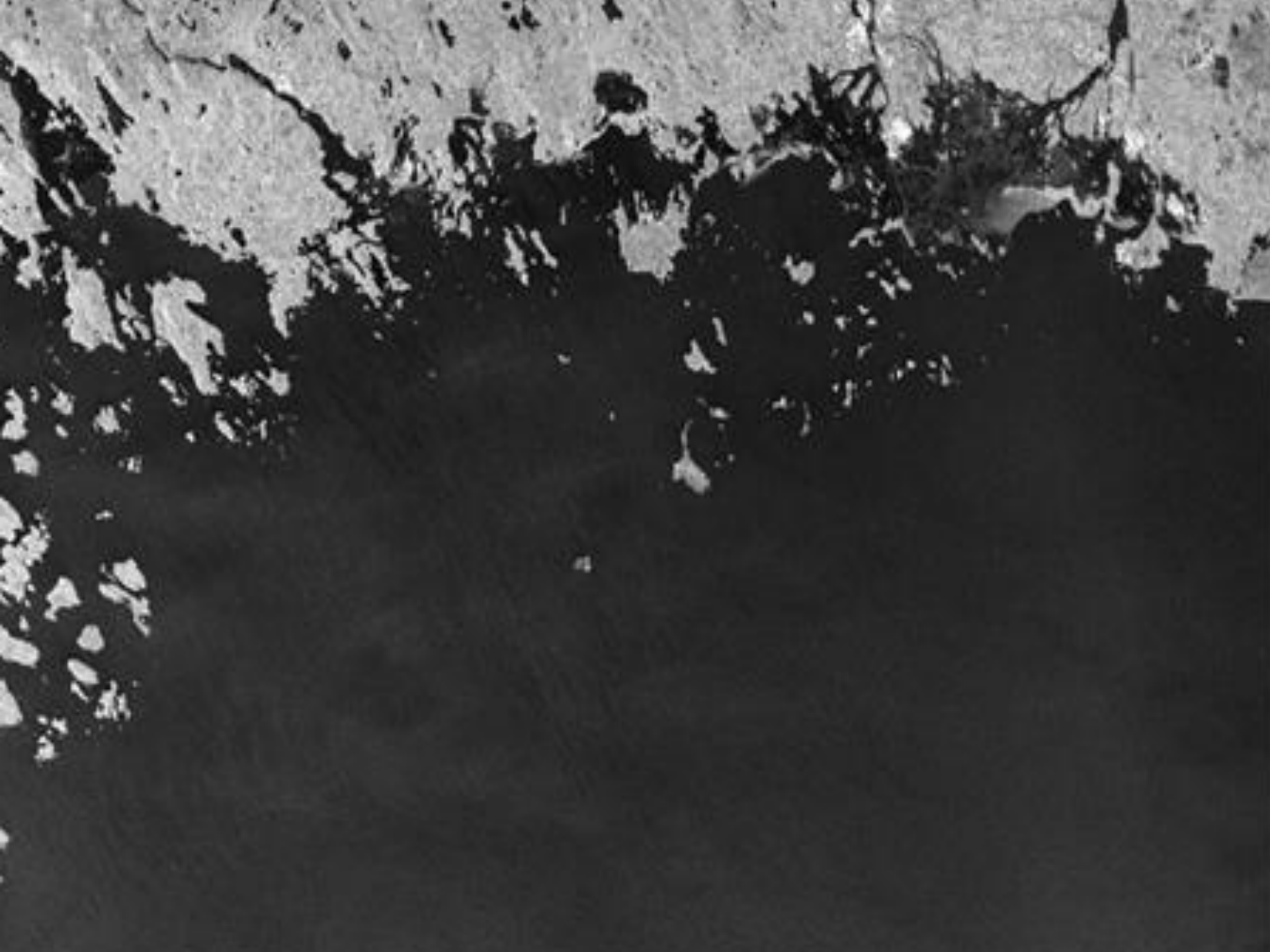
30 cm



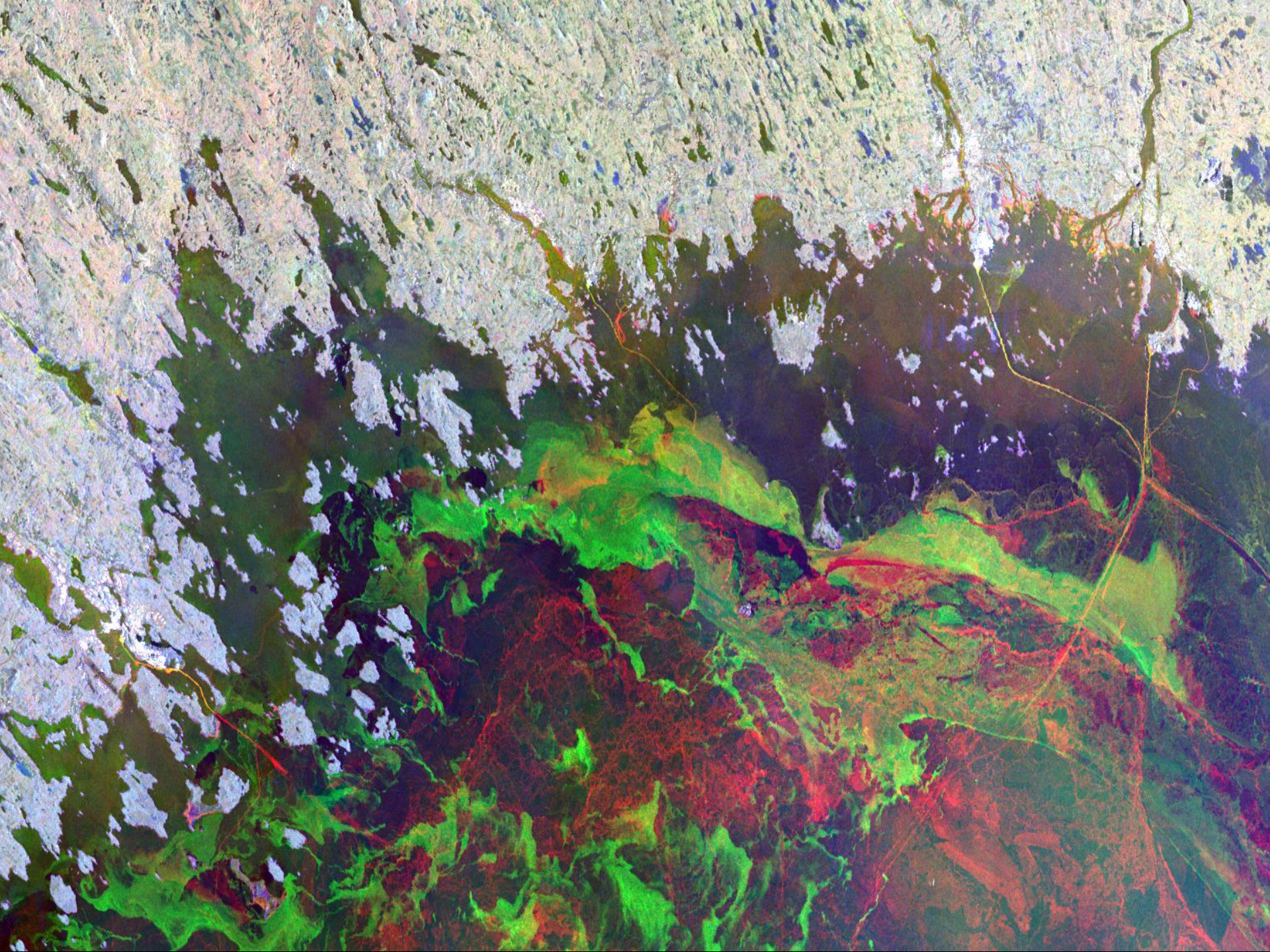




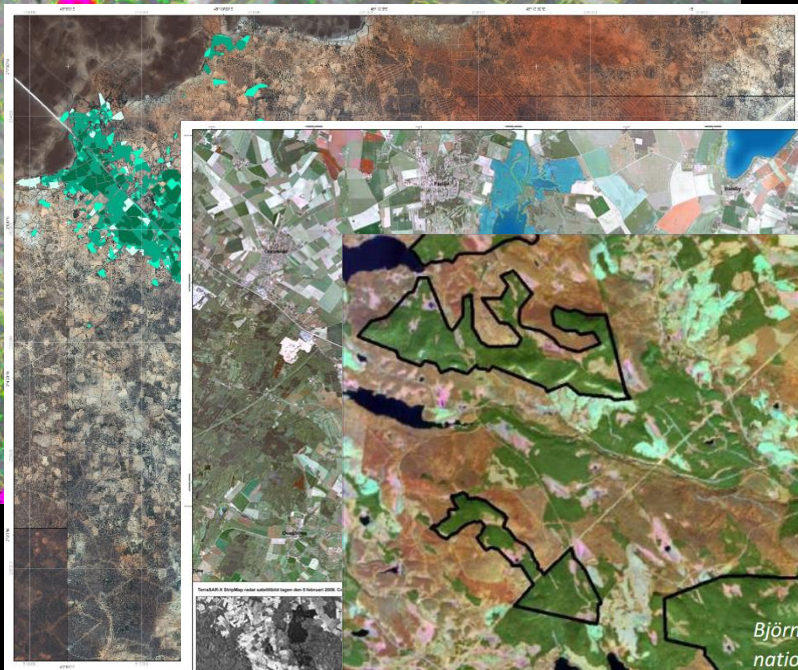
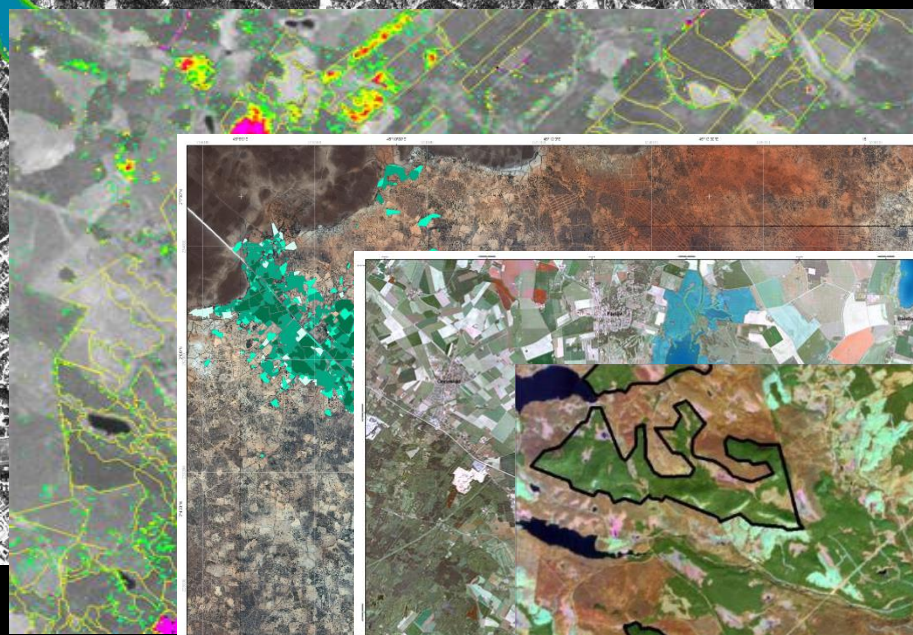
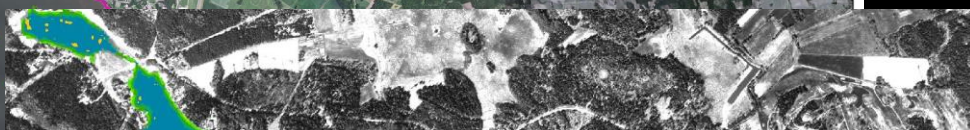
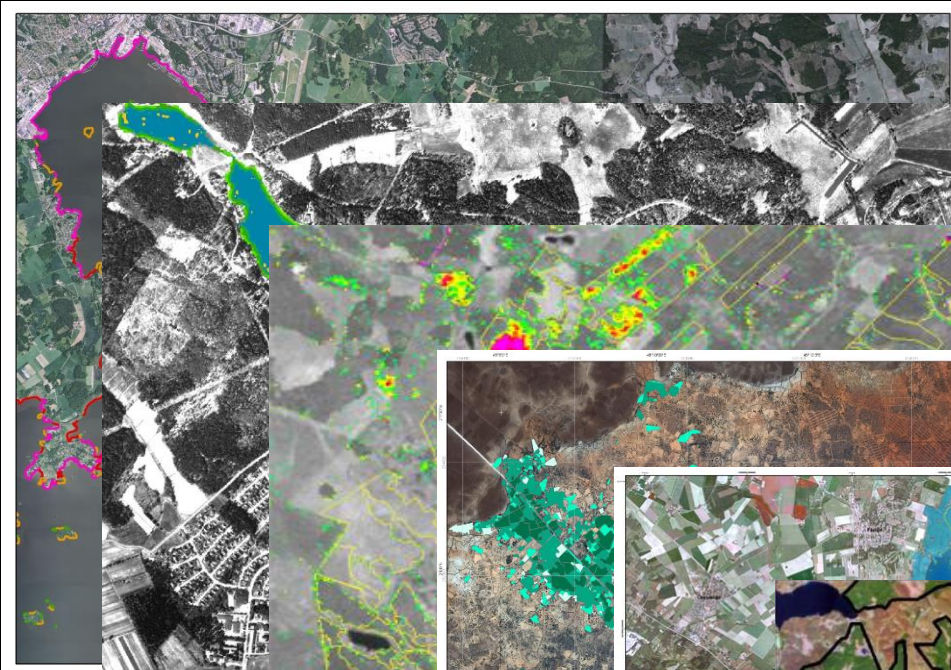






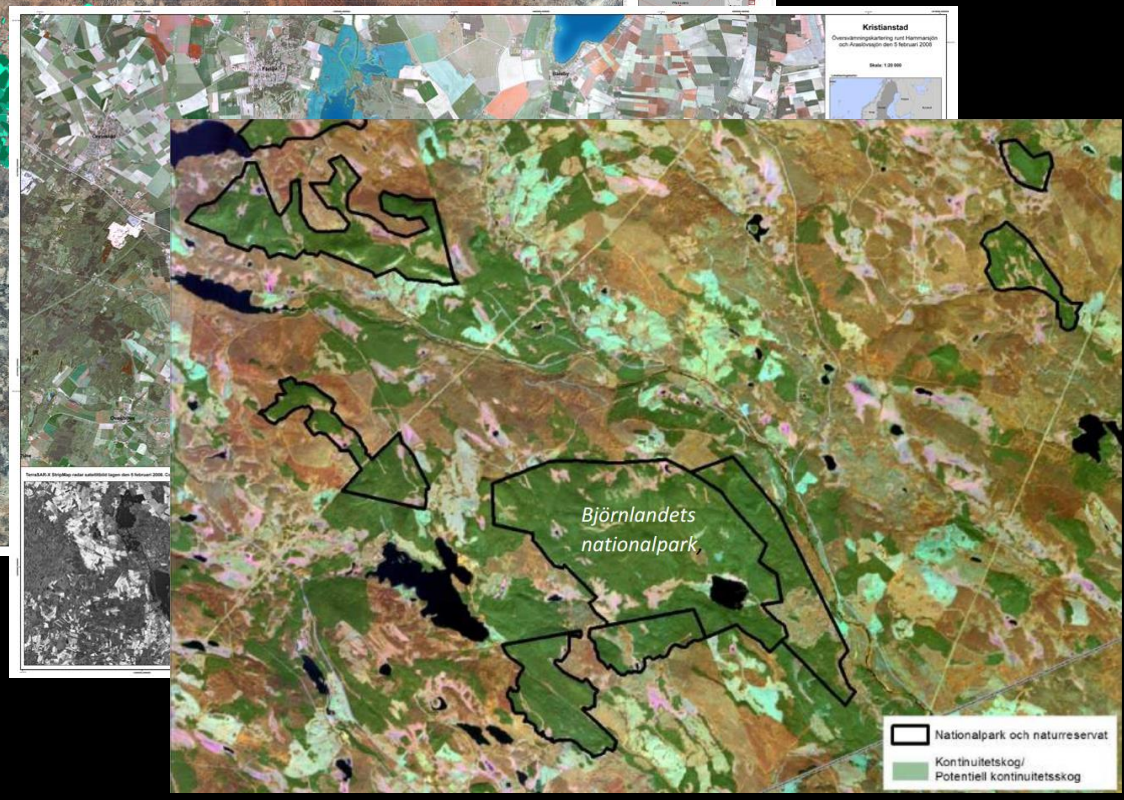






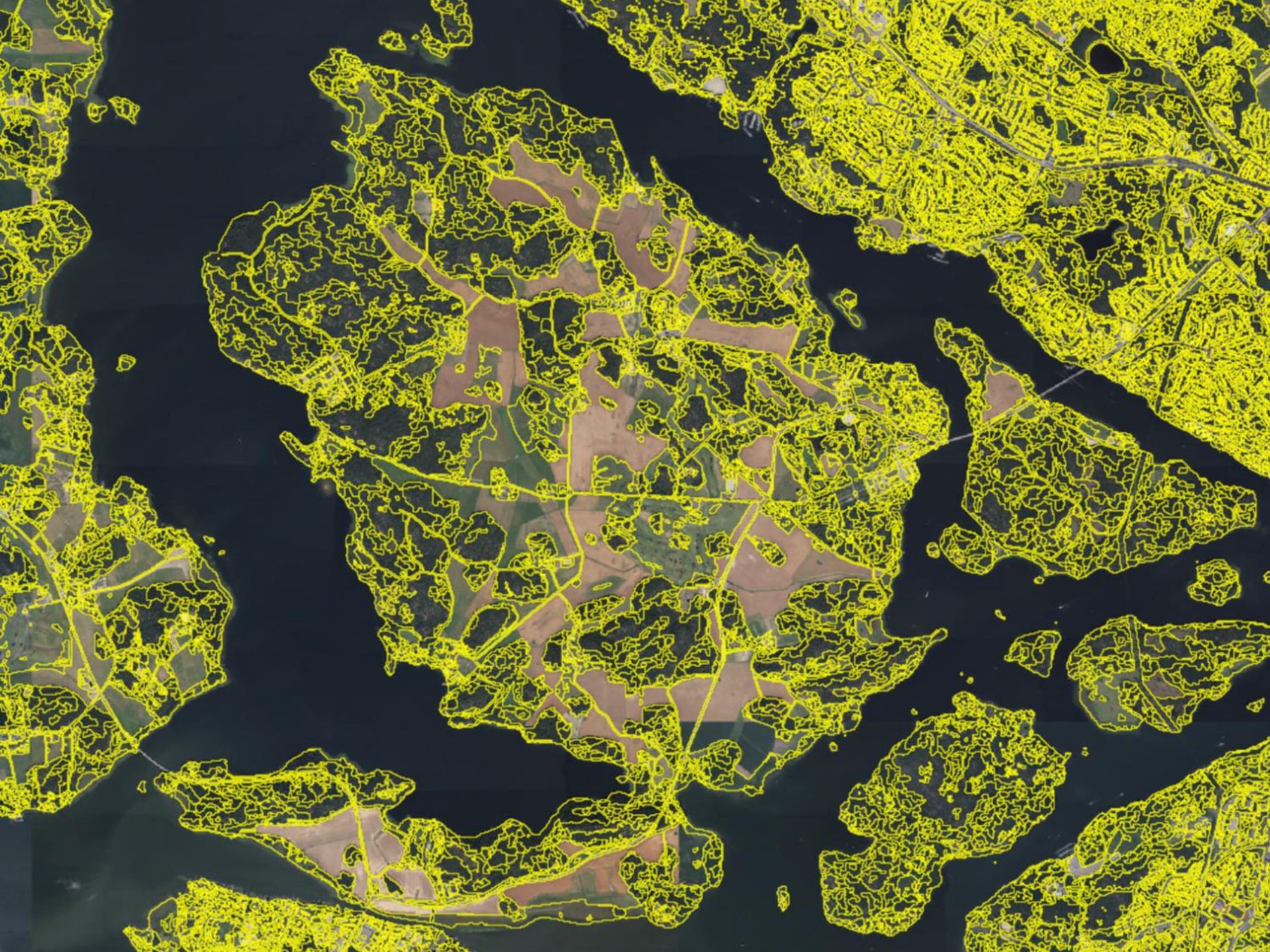
Somalia - Lower Shabelle  
Mogadishu Periphery  
Image map: 1:20 000

Kristianstad  
Översiktskartan över kommunen  
och Åsabygderna den 1 februari 2000  
Skala: 1:20 000

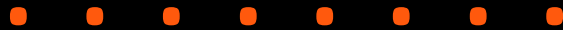


— Nationalpark och naturreservat  
Kontinuitetskog/  
Potentiell kontinuitetskog













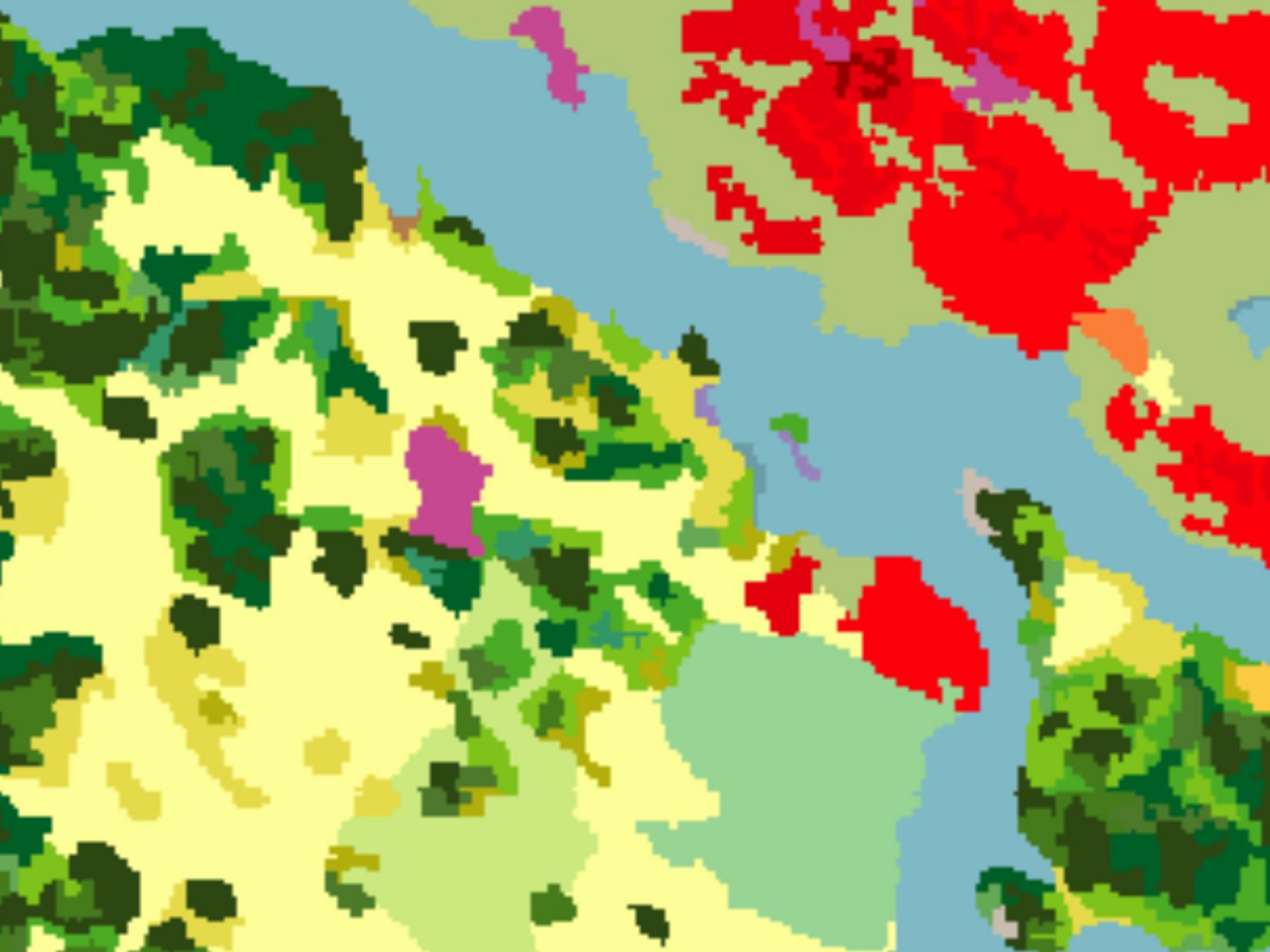


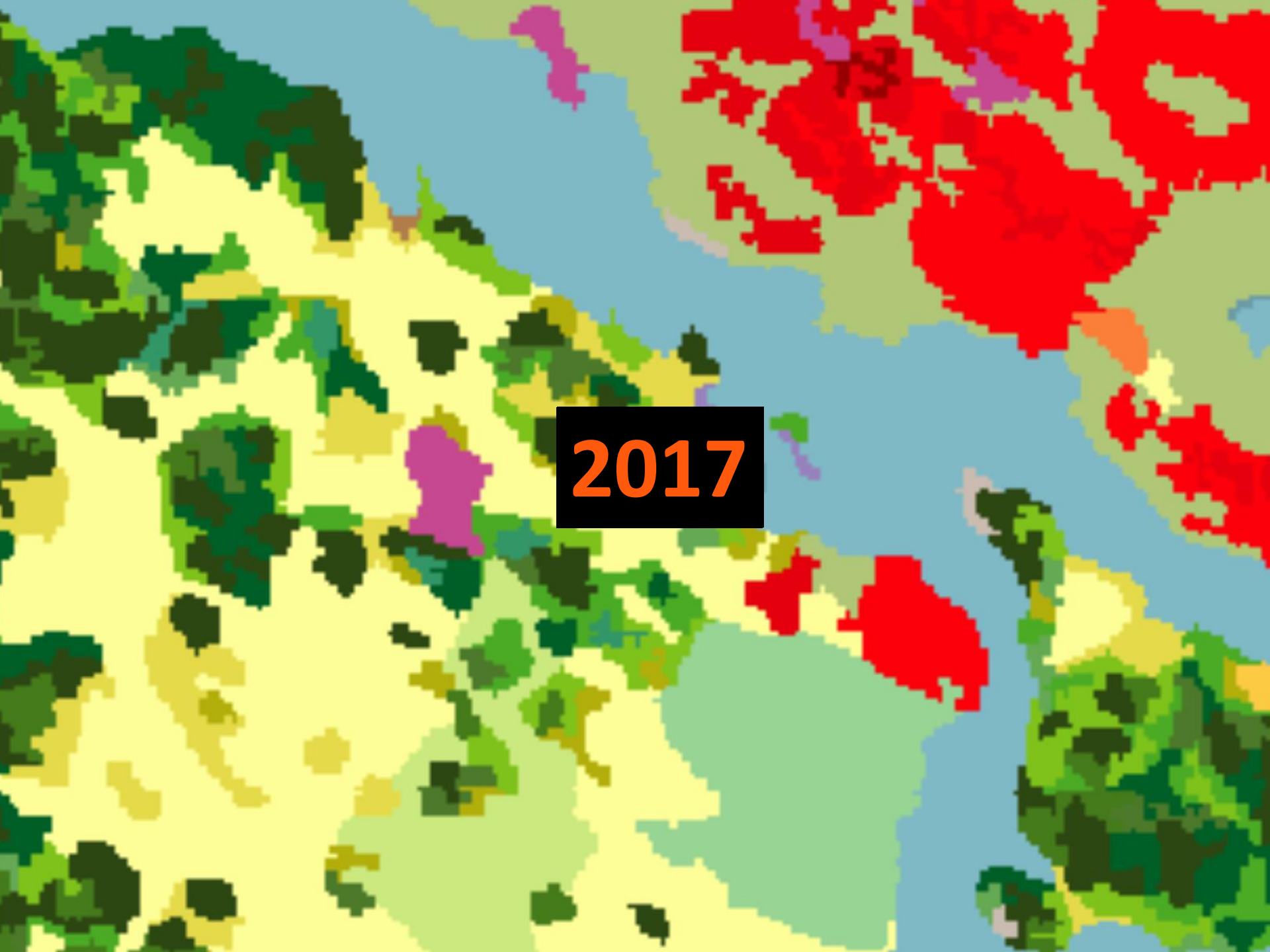


FIGUS 14-04  
FIGUS (MANGROVE) 'MANGROVE'  
GROWN ON PLANT 100 FIGS  
KROBIN BONSAI COLLECTION

marint vatten	sjöar
sediment	vattendrag
skog	ekhagar
barrträd	alsumpskogar
lövträd	järnvägar
berg-i-dagen	tät bebyggelse
gräsmark	gles bebyggelse
betesmark	köpcentrum
åker i växtföljd	idrottsplatser
åker i träda	parkeringsplatser
hyggen	sommarstugor
byggnader	våtmarker
vägar	golfbanor...

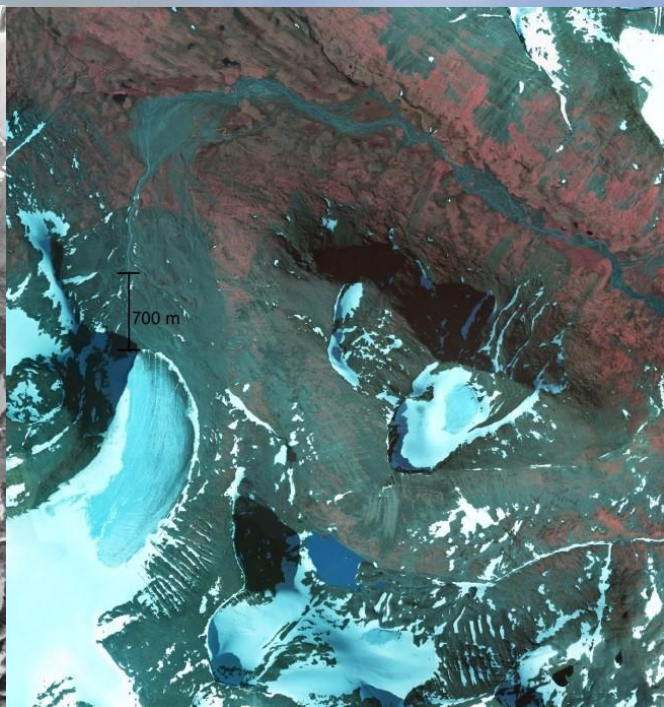
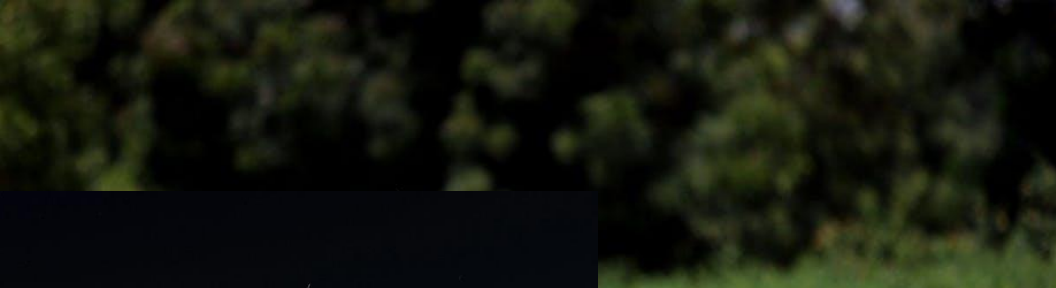


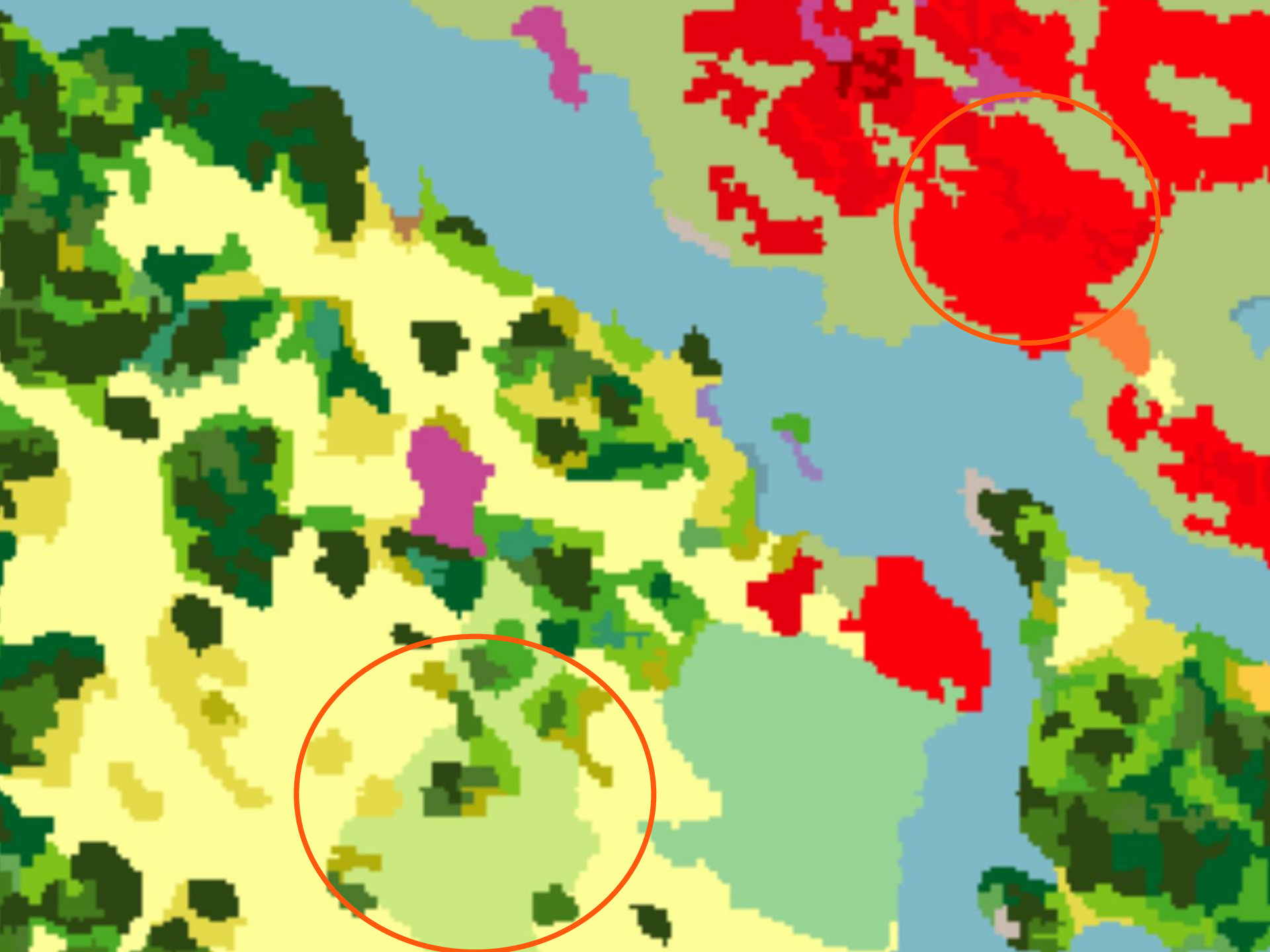




2017





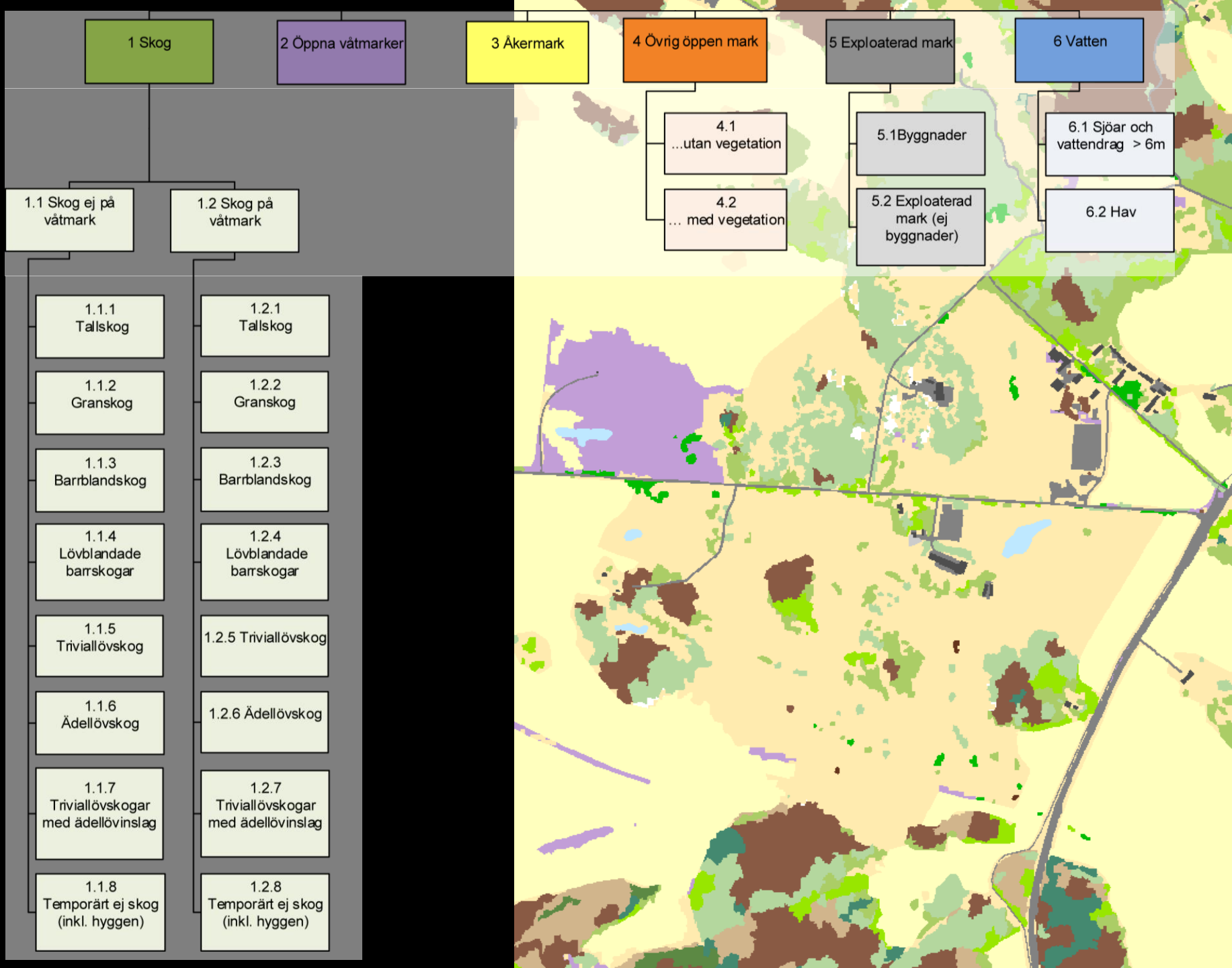




Kod (8 bitar)	Kod SMD	Kod CLC	Beskrivning
1	111	111	Tät stadstruktur
2	11211	112	Orter >200 invånare och mindre omr av grönt
3	11212	112	Orter >200 invånare och med större områden av grönt
4	1122	112	Orter <200 invånare
5	1123	112	"Enstaka hus och gårdsplaner"
6	121	121	Industri, handelsenheter, offentlig service, mm
7	122	122	Väg och järnvägsnät med kringområden
8	123	123	Hamnområden
9	124	124	Flygplats
10	1311	131	Grus- och sandtag
11	1312	131	Övriga mineralextraktionsplatser
12	132	132	Deponier
13	133	133	Byggplatser
14	141	141	Urbana grönområden
15	1421	142	Idrottsanläggning, skjutbana, mm
16	1422	142	Flygfält (gräs)
17	1423	142	Skidpist (endast i svensk produkt under 142)
18	1424	142	Golfbana
19	1425	142	Ej urban park
20	1426	142	Campingplats och fritidsbebyggelse







1 Skog

2 Öppna våtmarker

3 Åkermark

4 Övrig öppen mark

5 Exploaterad mark

6 Vatten

1.1 Skog ej på våtmark

1.2 Skog på våtmark

4.1 ...utan vegetation

4.2 ... med vegetation

5.1 Byggnader

5.2 Exploaterad mark (ej byggnader)

6.1 Sjöar och vattendrag > 6m

6.2 Hav

1.1.1 Talskog

1.2.1 Talskog

1.1.2 Granskog

1.2.2 Granskog

1.1.3 Barrblandskog

1.2.3 Barrblandskog

1.1.4 Lövblandade barrskogar

1.2.4 Lövblandade barrskogar

1.1.5 Triviallövskog

1.2.5 Triviallövskog

1.1.6 Ädellövskog

1.2.6 Ädellövskog

1.1.7 Triviallövskogar med ädellövinslag

1.2.7 Triviallövskogar med ädellövinslag

1.1.8 Temporärt ej skog (inkl. hyggen)

1.2.8 Temporärt ej skog (inkl. hyggen)













































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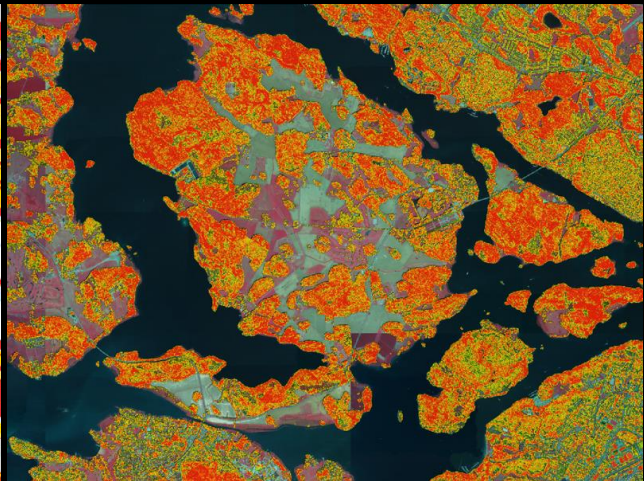
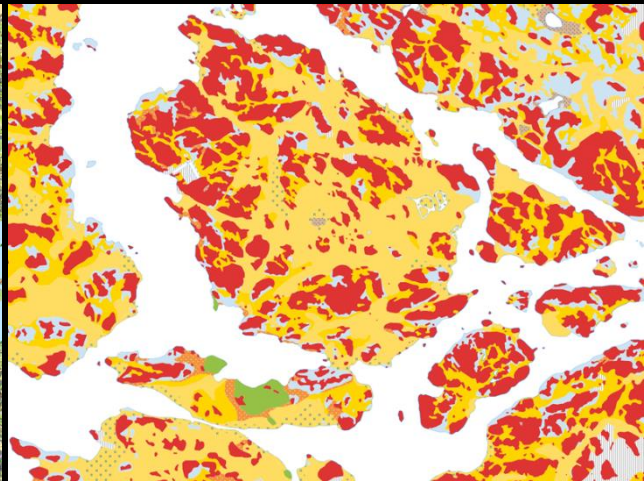


© Matthew Gourlay

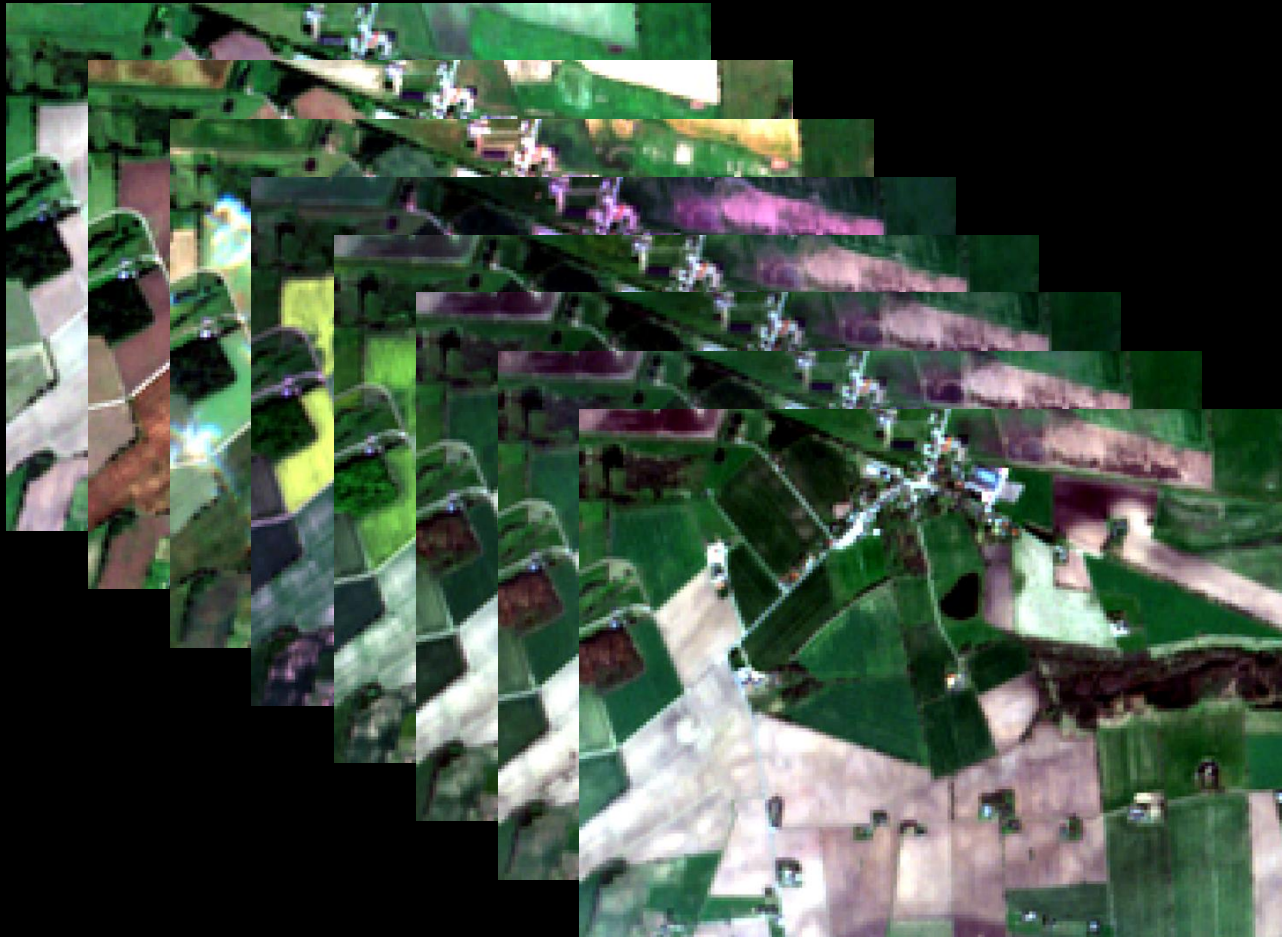








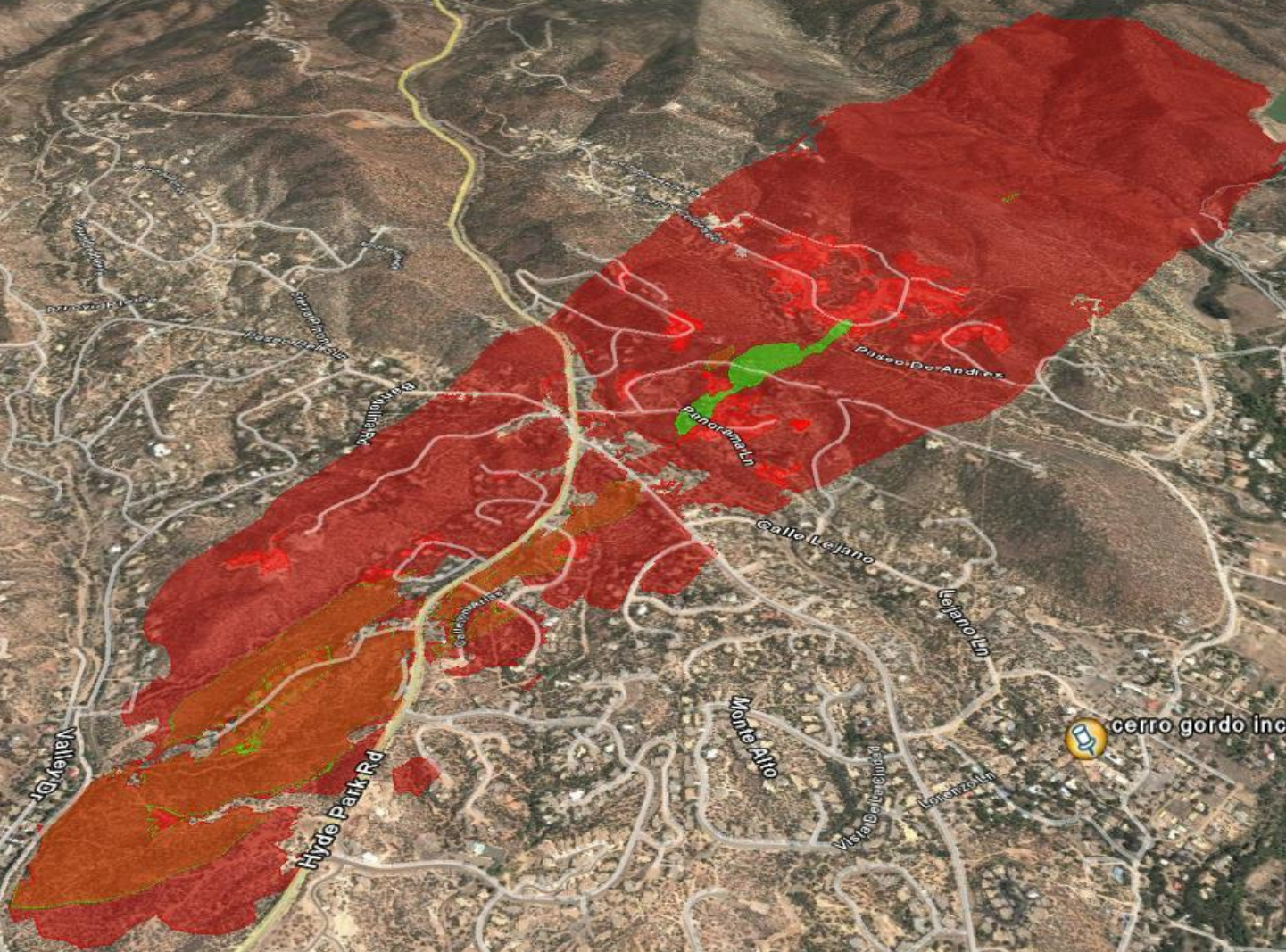












 cerro gordo incident

Sunset St

Prince Ave

Valley Dr

Hyde Park Rd

Rodriguez St

Monte Alto

E Palace Ave

Gonzales Rd

E Alameda St

Canyon Rd

Cristo Rey St

Cerro San Acacio

Image © 2006 DigitalGlobe

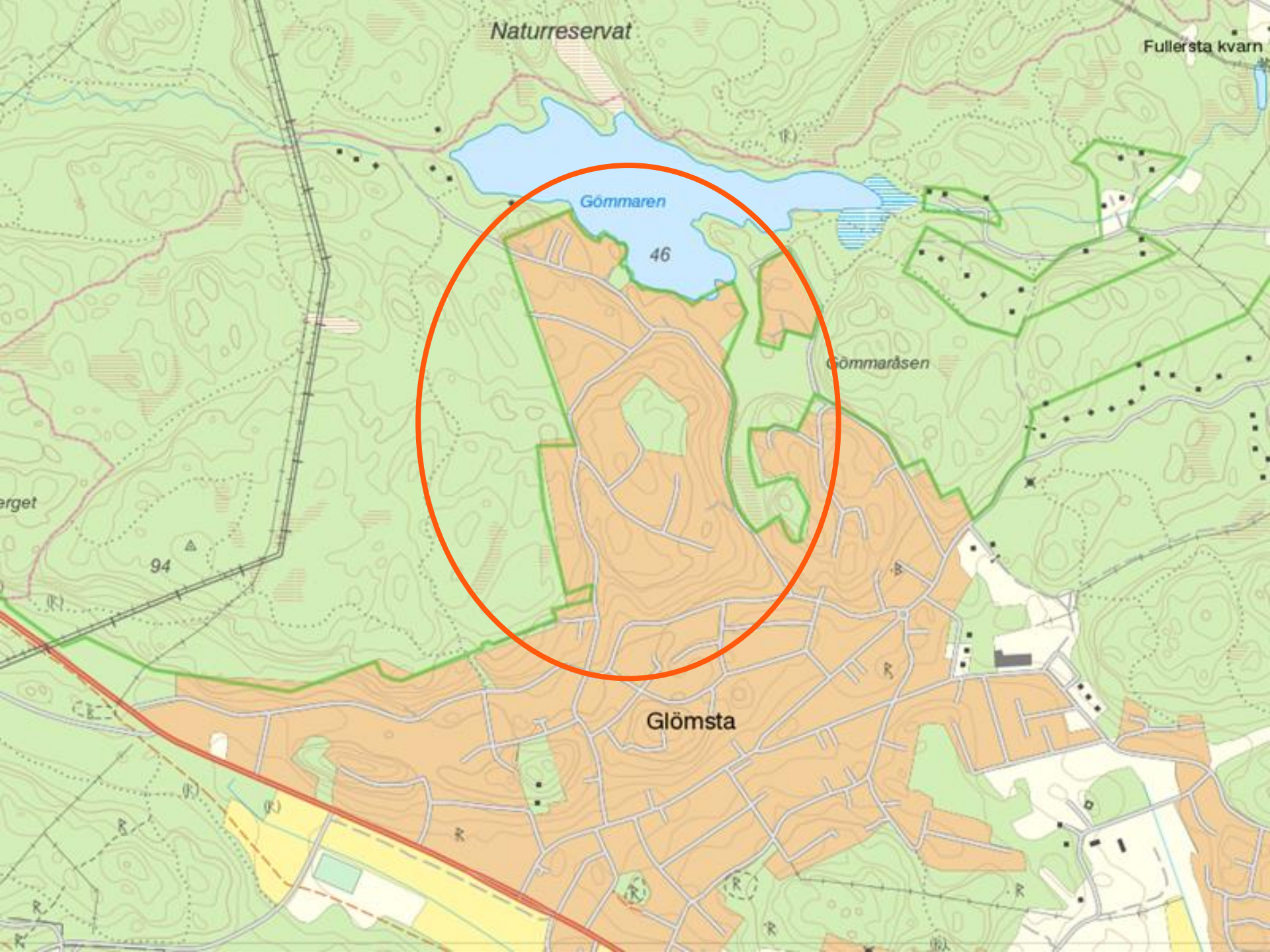
© 2006 Navteq

© 2006 Google  
www.redfish.com









Naturreservat

Fullersta kvarn

Gömmaren

46

Gömmaråsen

94

Glömsta

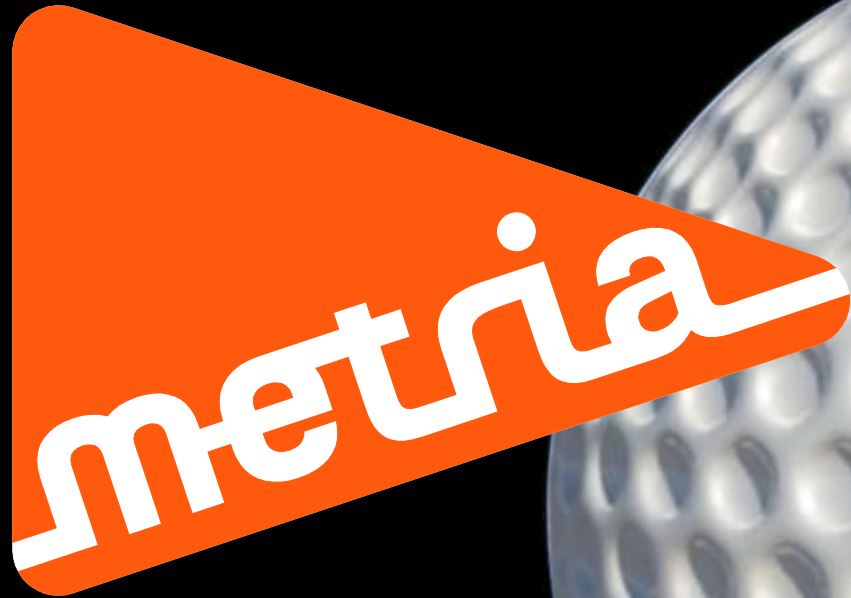












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Tack för mig, frågor?