

Status of Baltic seatrout stocks



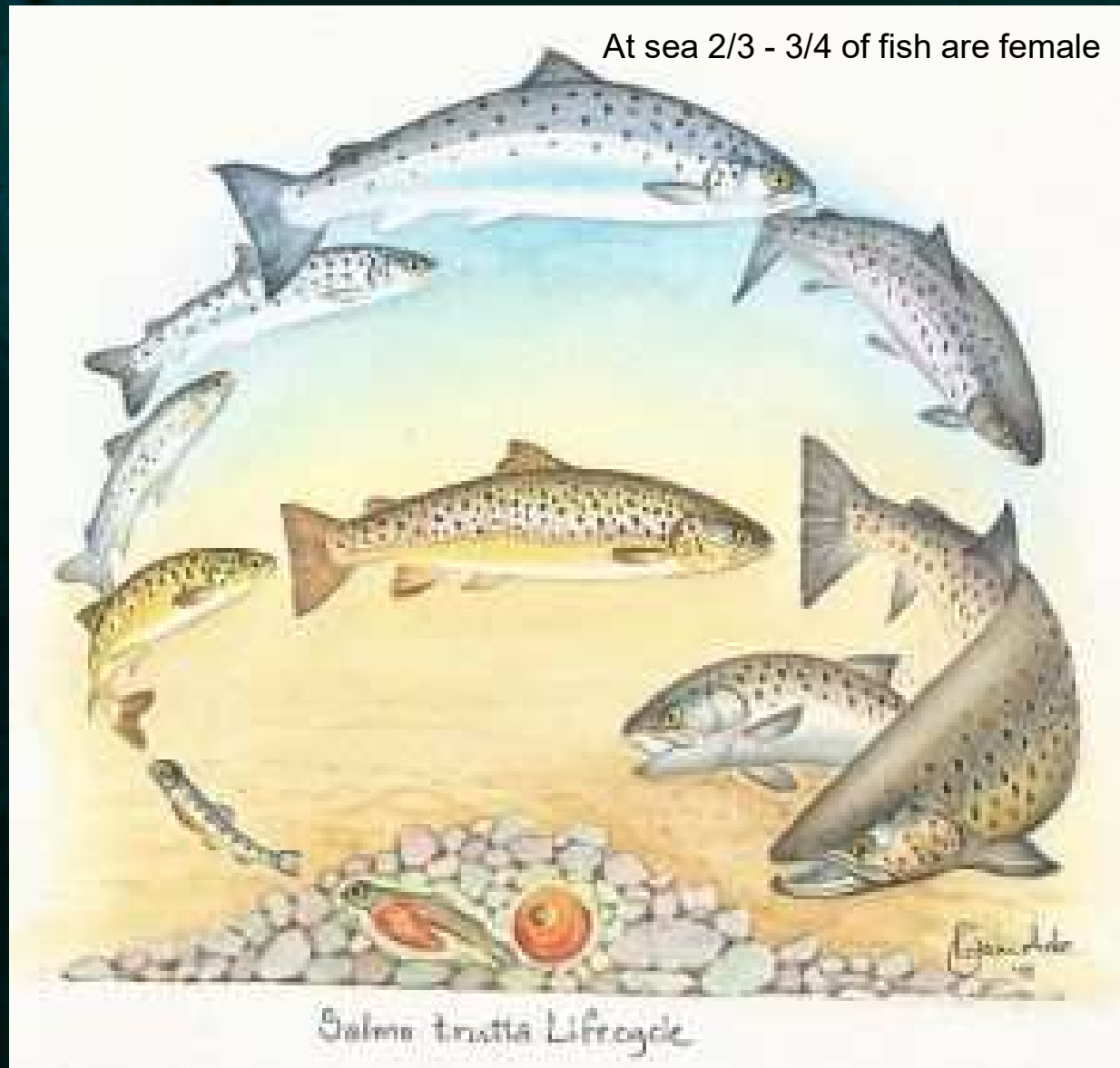
EUROPEAN
REGIONAL
DEVELOPMENT
FUND

Martin Kesler



EUSBSR
EU STRATEGY
FOR THE BALTIC
SEA REGION

Trout life cycle



Source: <http://deveron.org/trout-salmo-trutta/robin-ade-trout-life-cycle/#prettyPhoto>

Sea trout in the Baltic sea



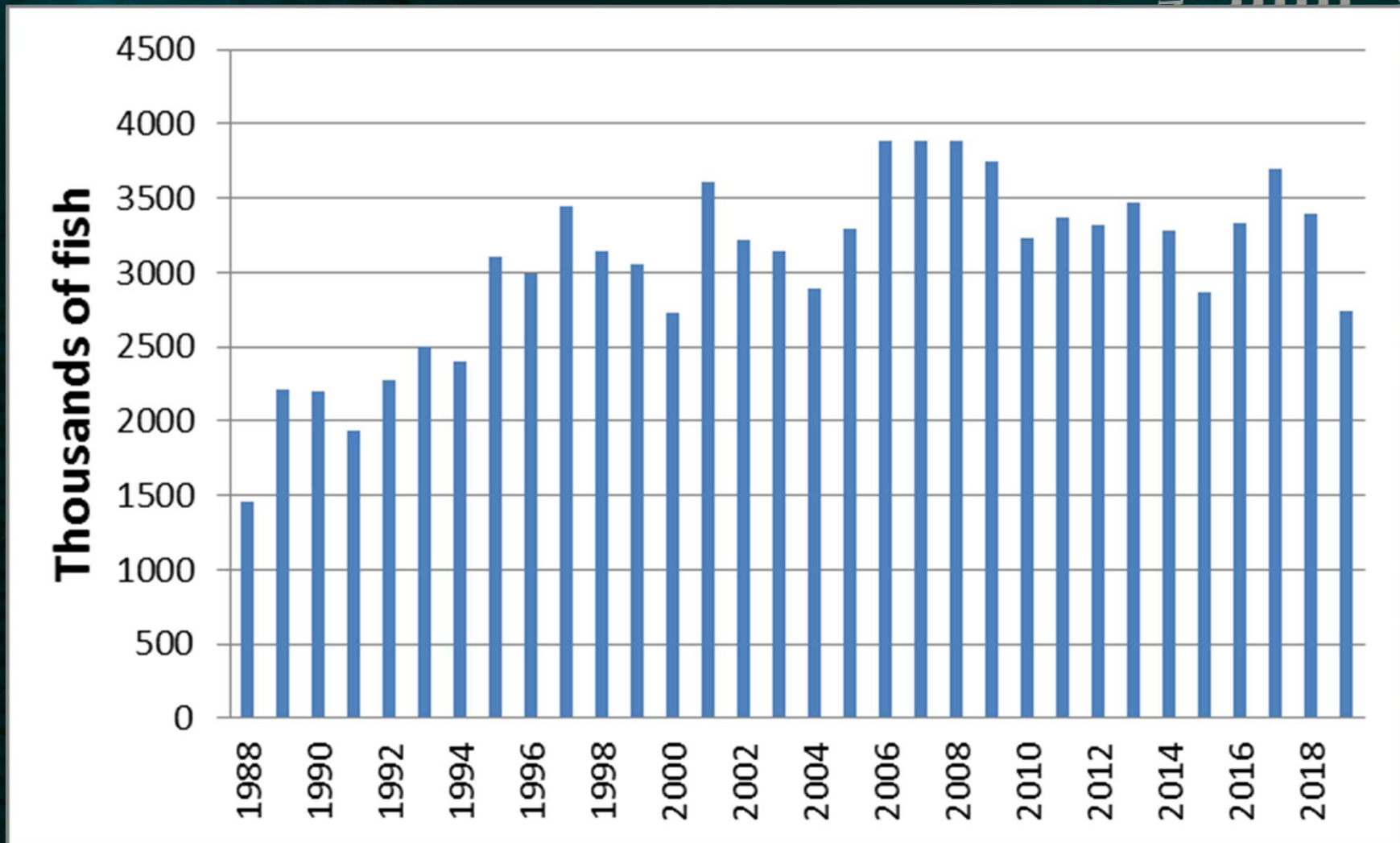
- Sea trout status is internationally assessed in ICES - Baltic Salmon and Trout Assessment Working Group (WGBAST)
- No international quota is set for sea trout (Baltic salmon has total allowable allowed catch set in numbers)
- Each country around the Baltic sea has its own fishing regulations

Sea trout in the Baltic sea II



- Estimated 1000 populations
- There is some information about 515 wild populations and another 110 rivers have wild populations supplemented with stocked smolts
- Millions of smolts from hatcheries are stocked annually

Total number of raised and released sea trout smolts in the Baltic Sea



Source: ices-wgbast

Recapture rate of individually tagged stocked fish

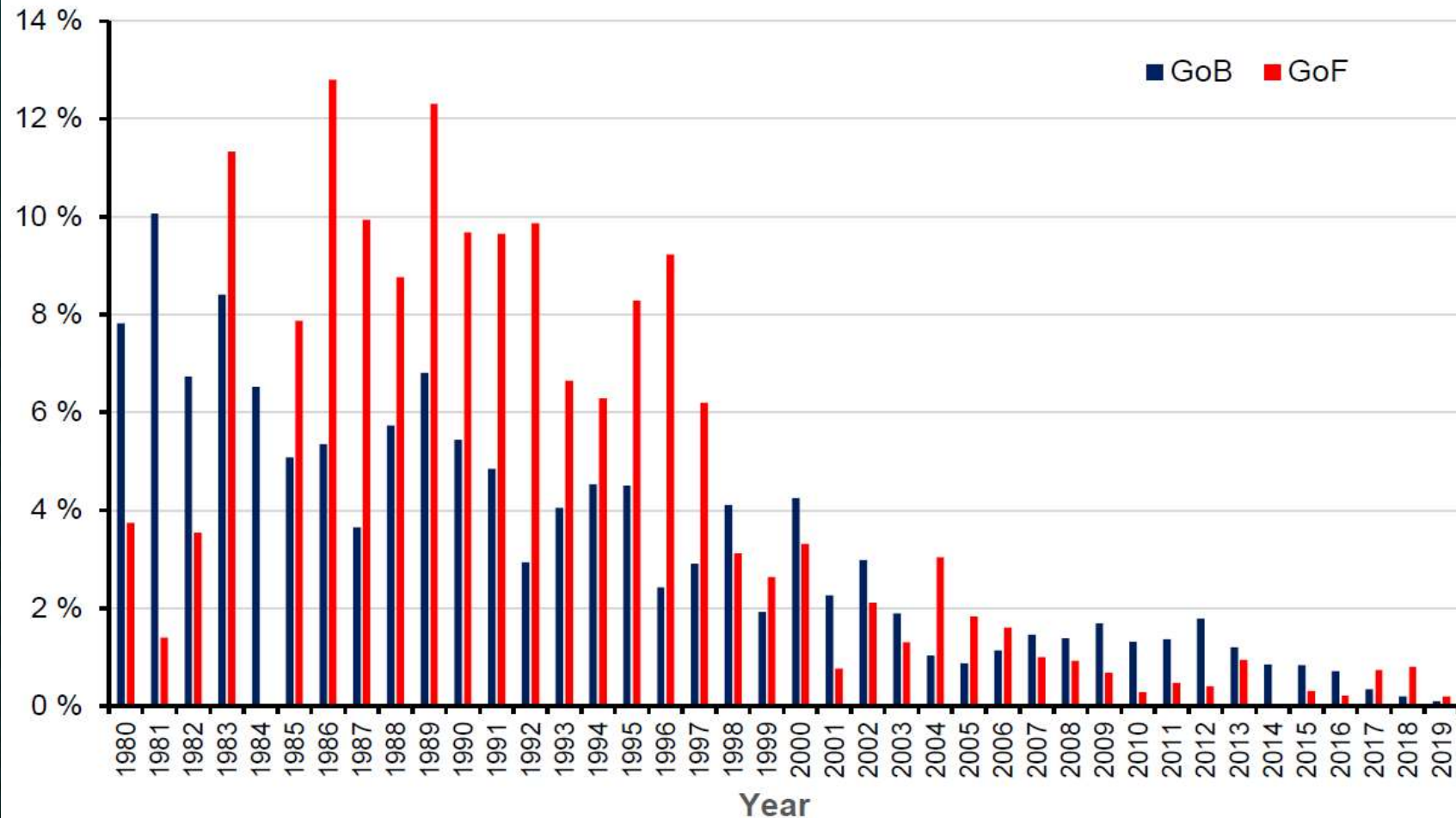
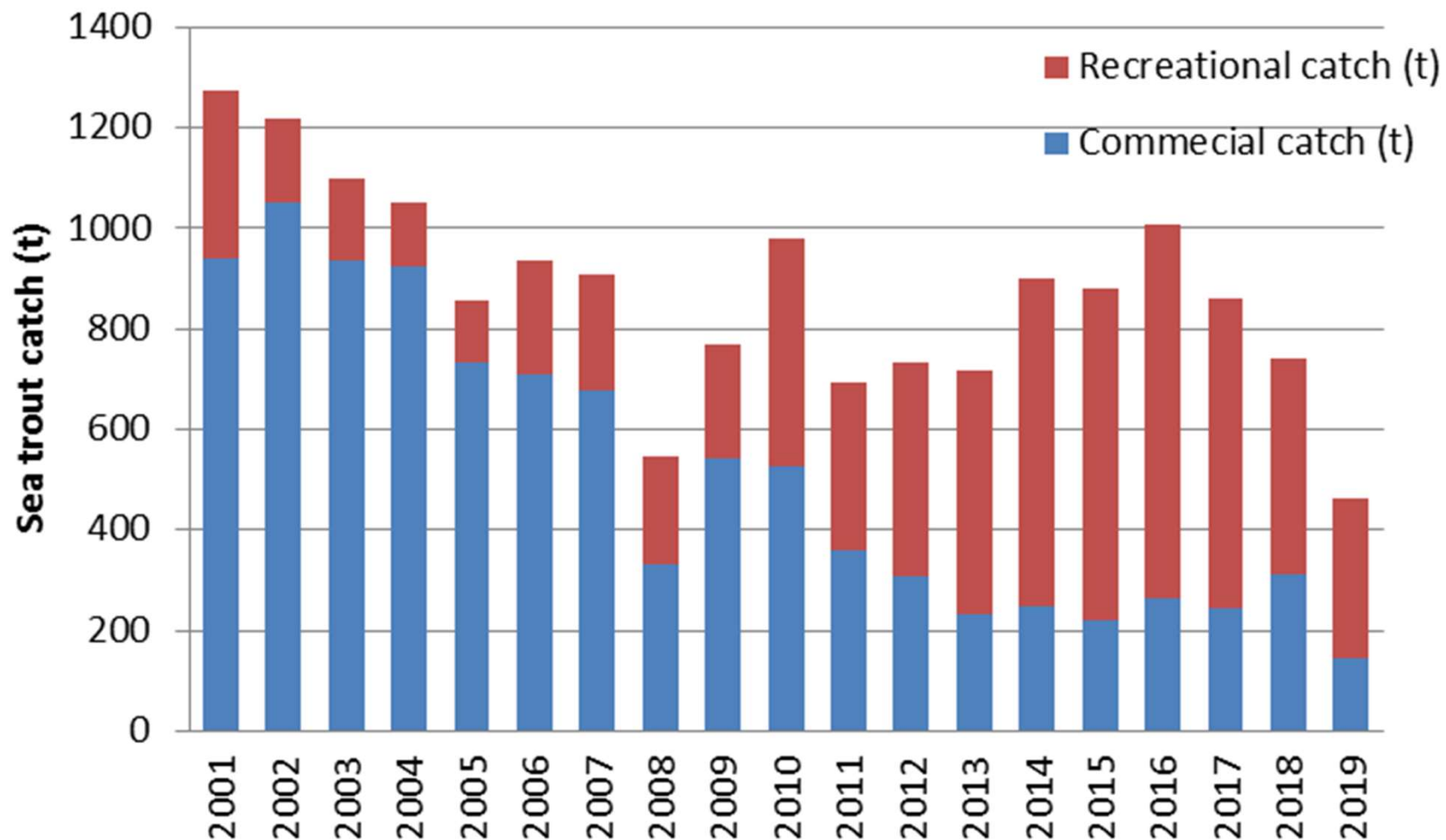


Figure 5.4.1.5. Return rates of Carlin tagged sea trout released in Gulf of Bothnia and Gulf of Finland in 1980–2018 (updated in March 2020).

Source: ices-wgbast

Sea trout catch in Baltic sea



Source: ices-wgbast

Wild trout populations are predominantly monitored by measuring parr density in rivers (electrofishing)



Trout parr



Salmon parr

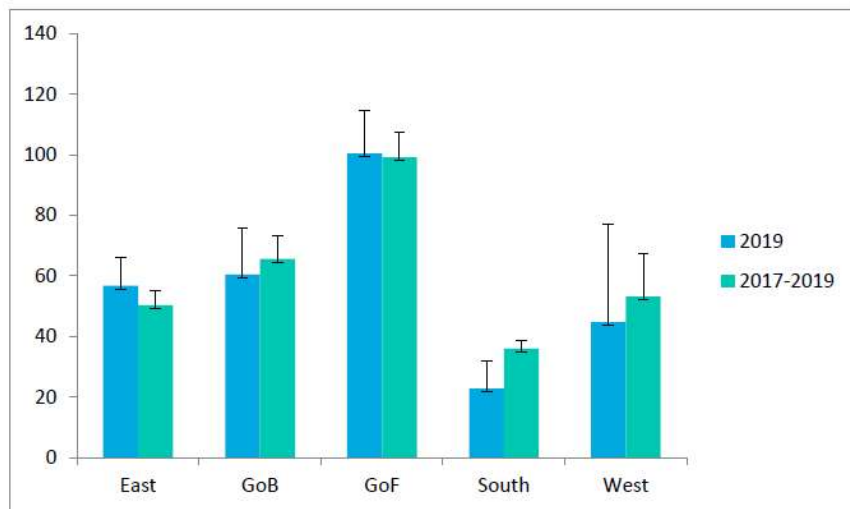


Figure 5.5.1. Recruitment status for 0+ trout by Assessment Area Division (95% CL, only positive value displayed) in 2019 and the last three years (2017–2019).

(ices – wgbast 2020)

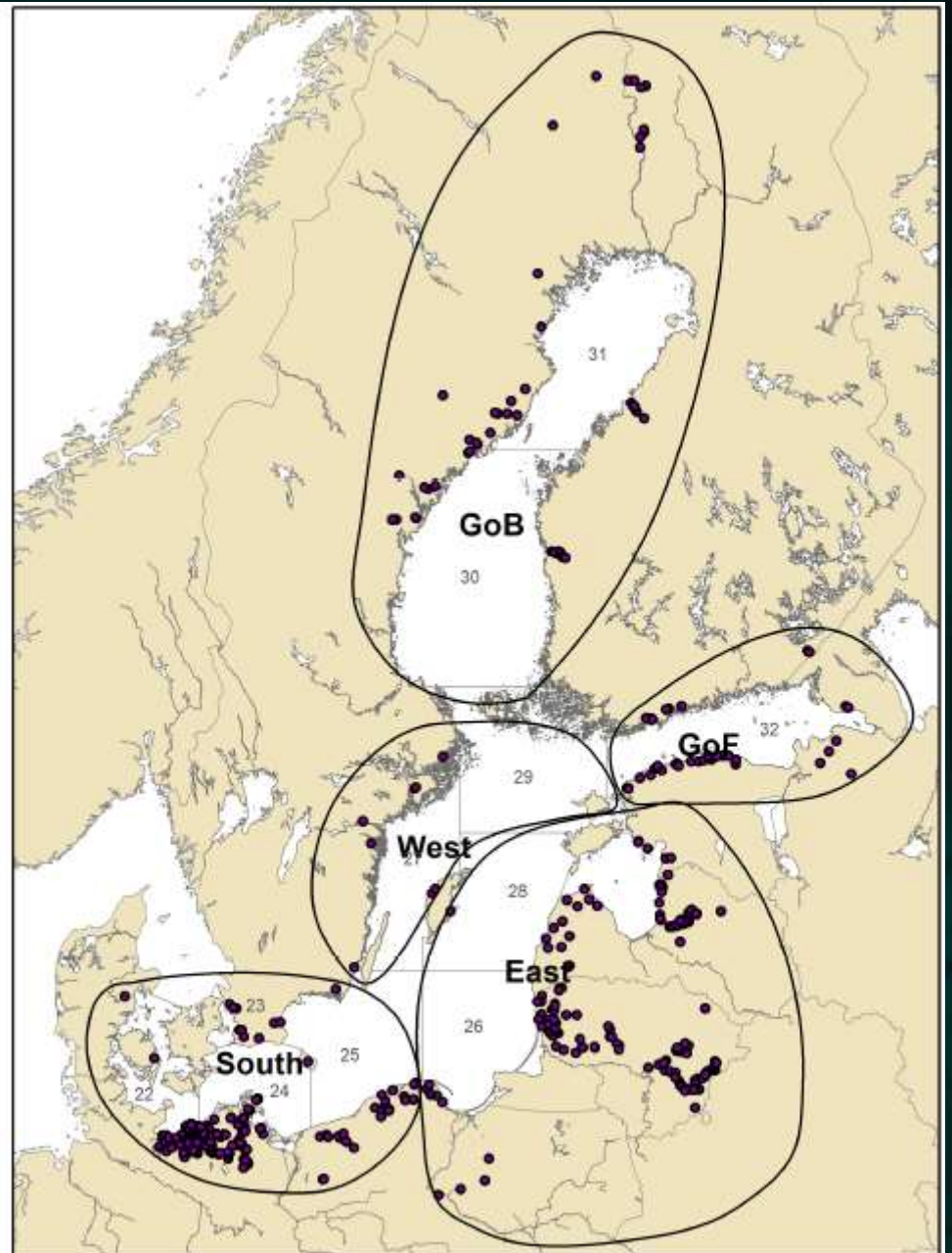


Figure 5.3.2.1. Electrofishing sites in subdivisions 22–32 used for assessment of sea trout recruitment status.

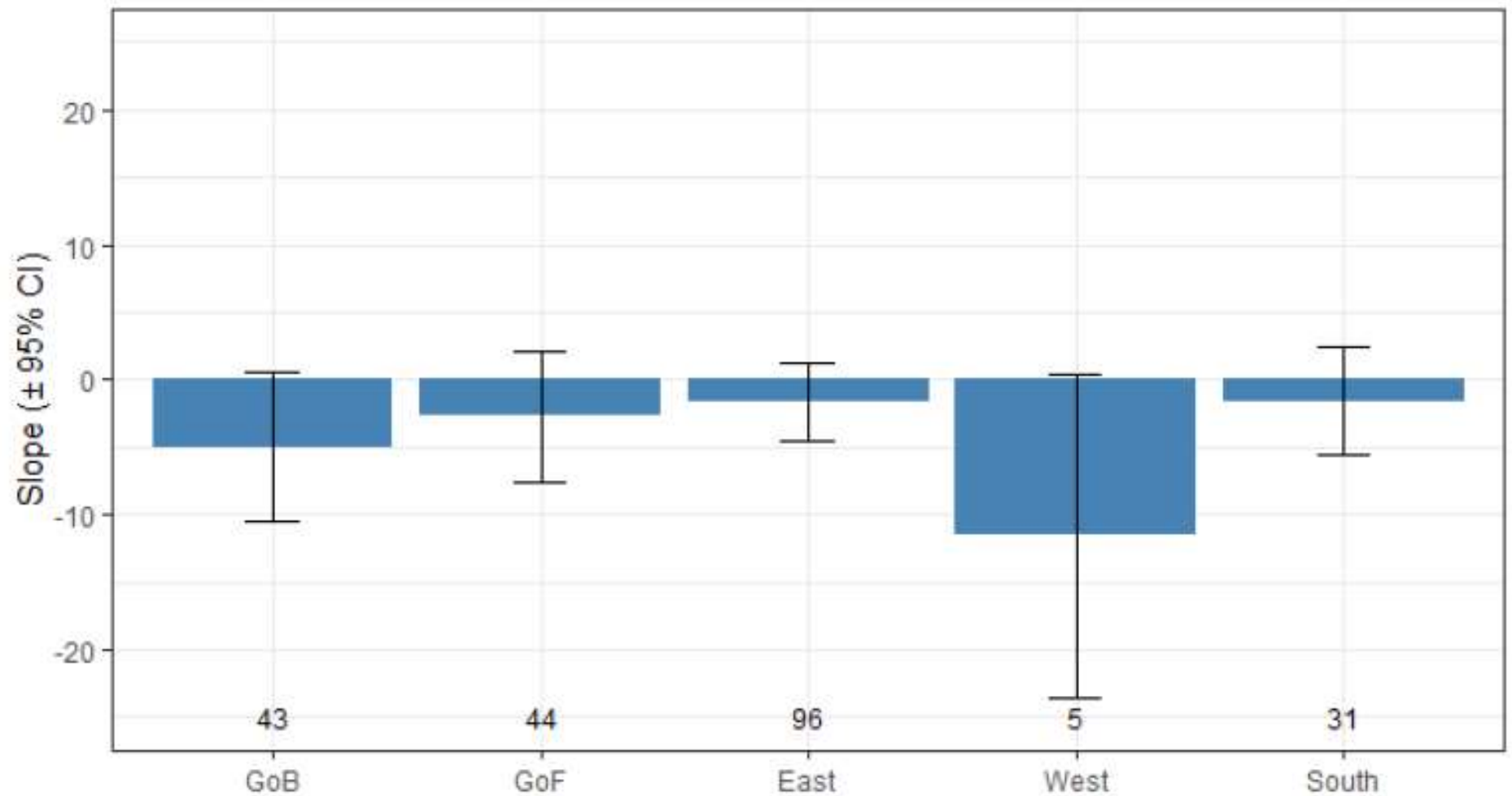


Figure 5.5.4. Trend (linear regression slope with 95% CI) in 0+ trout recruitment status in the last five years by Assessment Area Division (number of sites is denoted above the x-axis). Note that trends are calculated by assessment area and not by individual sites.

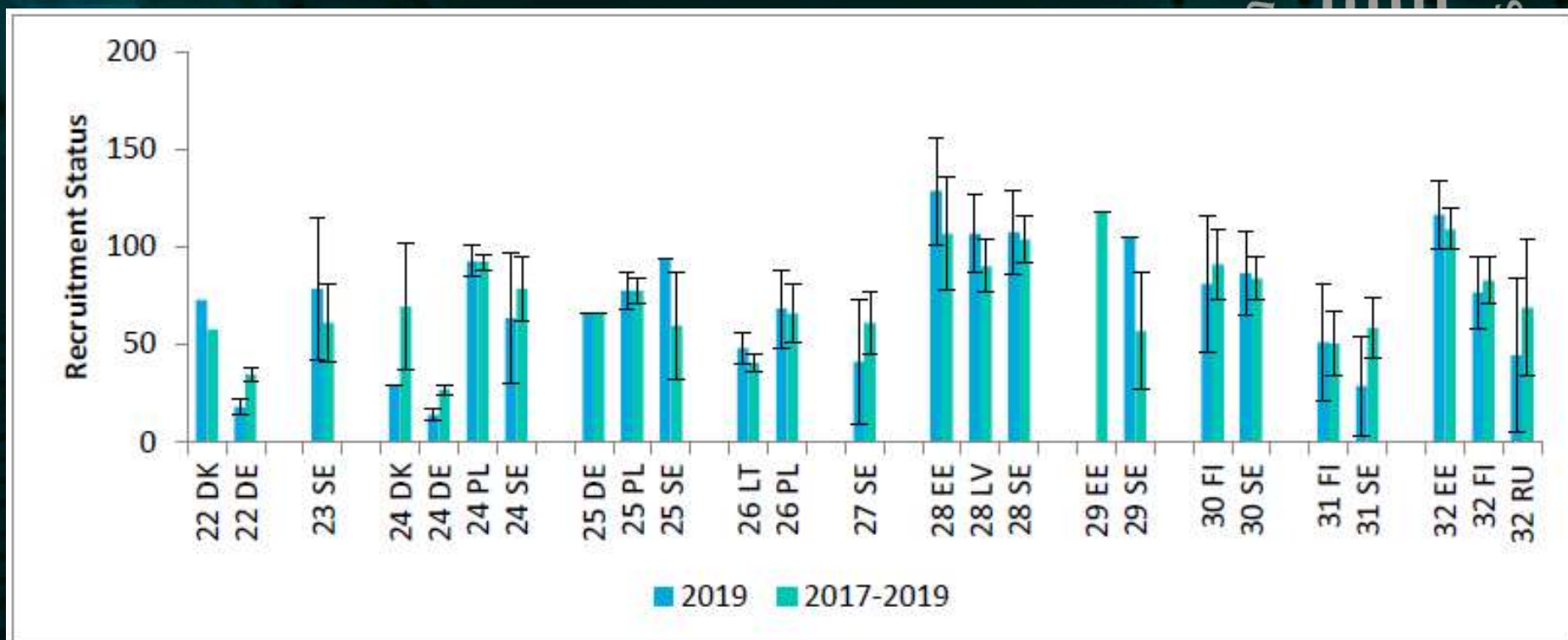


Figure 5.5.3. Recruitment status for 0+ trout by ICES SD and individual countries within SD (95% CL, only positive value displayed) in 2019 and the last three years (2016–2018). There are no CL bars year 2018 for 24 DK, PL and SE (n=1), and no data for 29 EE.

Main conclusions



- Stocked fish have poor survival at sea
- Most Baltic sea areas have negative trend in recruitment status. Particularly in the west.
- Maintaining good recruitment status in wild trout populations is the basis of sustainable sea trout fishing
- Monitoring of sea trout populations is rather „thin“ in many regions

Thank you!
Linnamäe dam should be
removed





Marine depth use of sea trout *Salmo trutta* in fjord areas of central Norway

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Journal of Fish Biology (2017) **91**, 1268–1283

Journal of Fish Biology (

doi:10.1111/jfb.13463, available online at wileyonlinelibrary.com doi:10.1111/jfb.13463, a

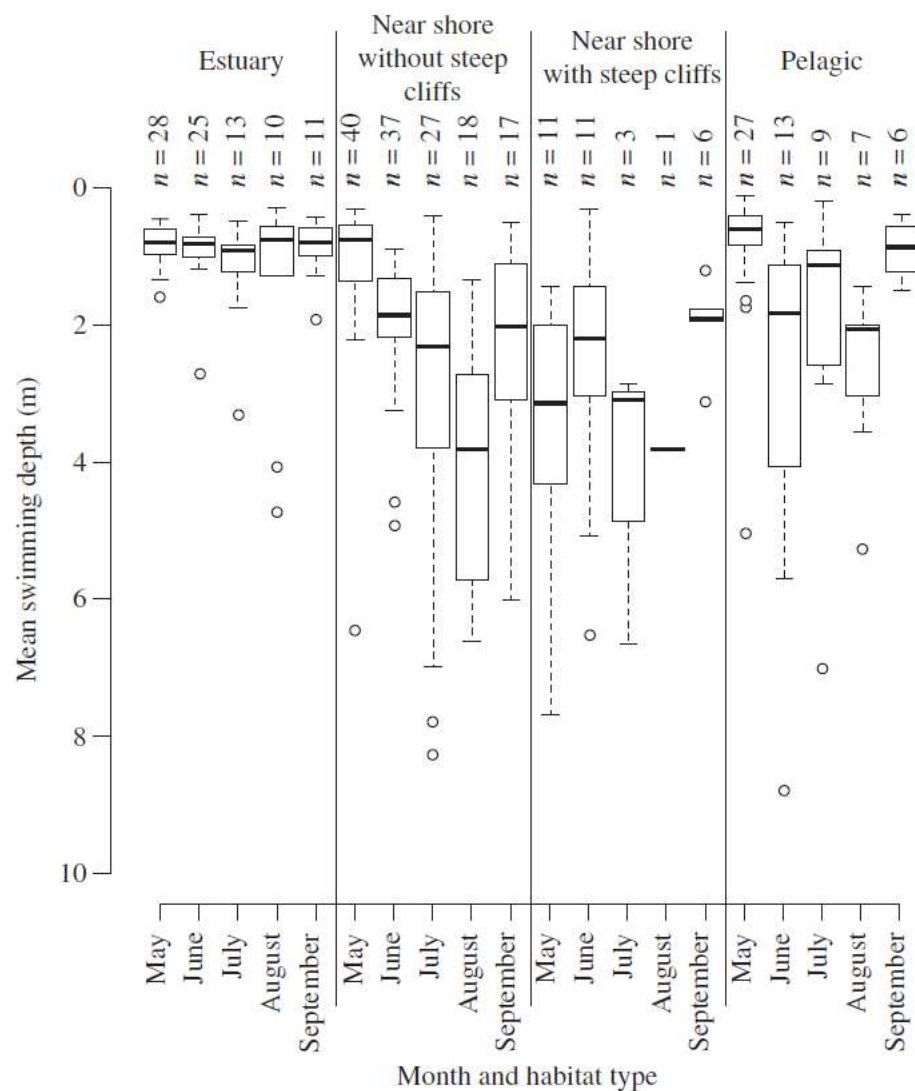


FIG. 4. Monthly average *Salmo trutta* swimming depth in estuarine habitat, near shore habitat without steep cliffs, near shore habitat with steep cliffs and pelagic habitat during summer (1 May–1 October 2013). The box-and-whisker plots show median values (—), the interquartile ranges (box) and the 5th and 95th percentiles (whiskers) and outliers (O).

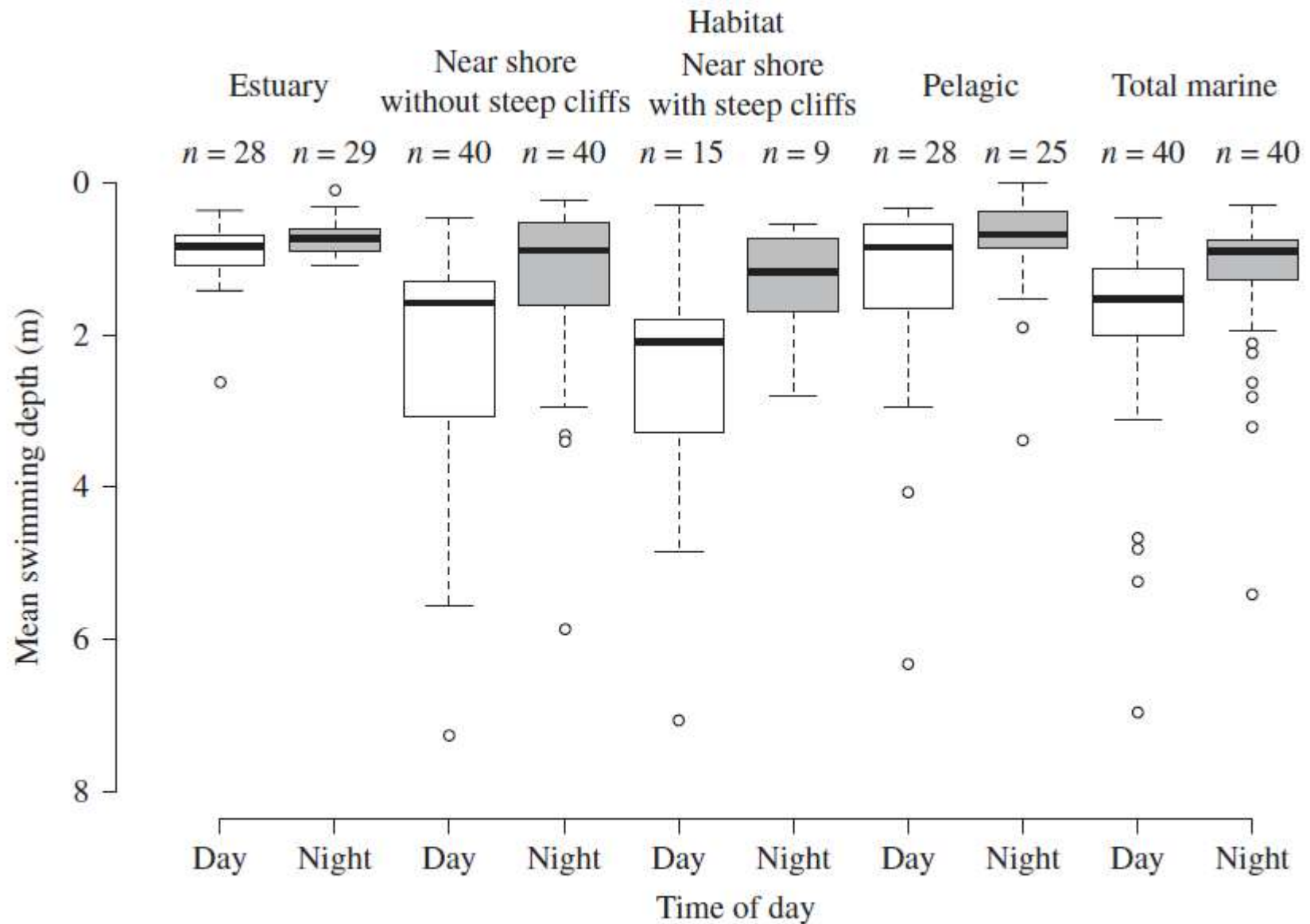


FIG. 5. Individual *Salmo trutta* mean swimming depth in different habitats during day (□) and night (■) during summer (1 May–1 October 2013). The box-and-whisker plots show median values (—), the interquartile ranges (boxes) and the 5th and 95th percentiles (whiskers) and outliers (○).