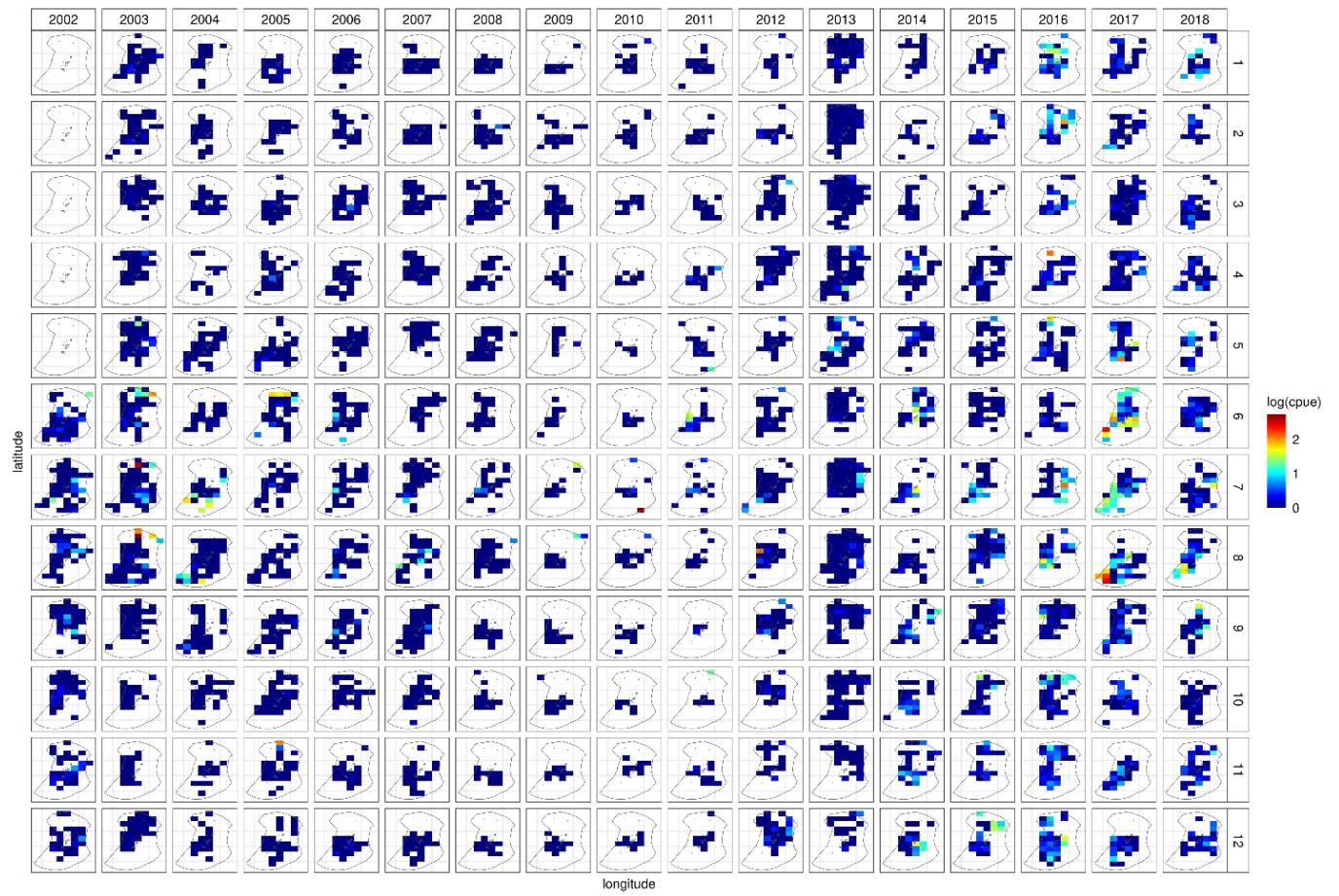
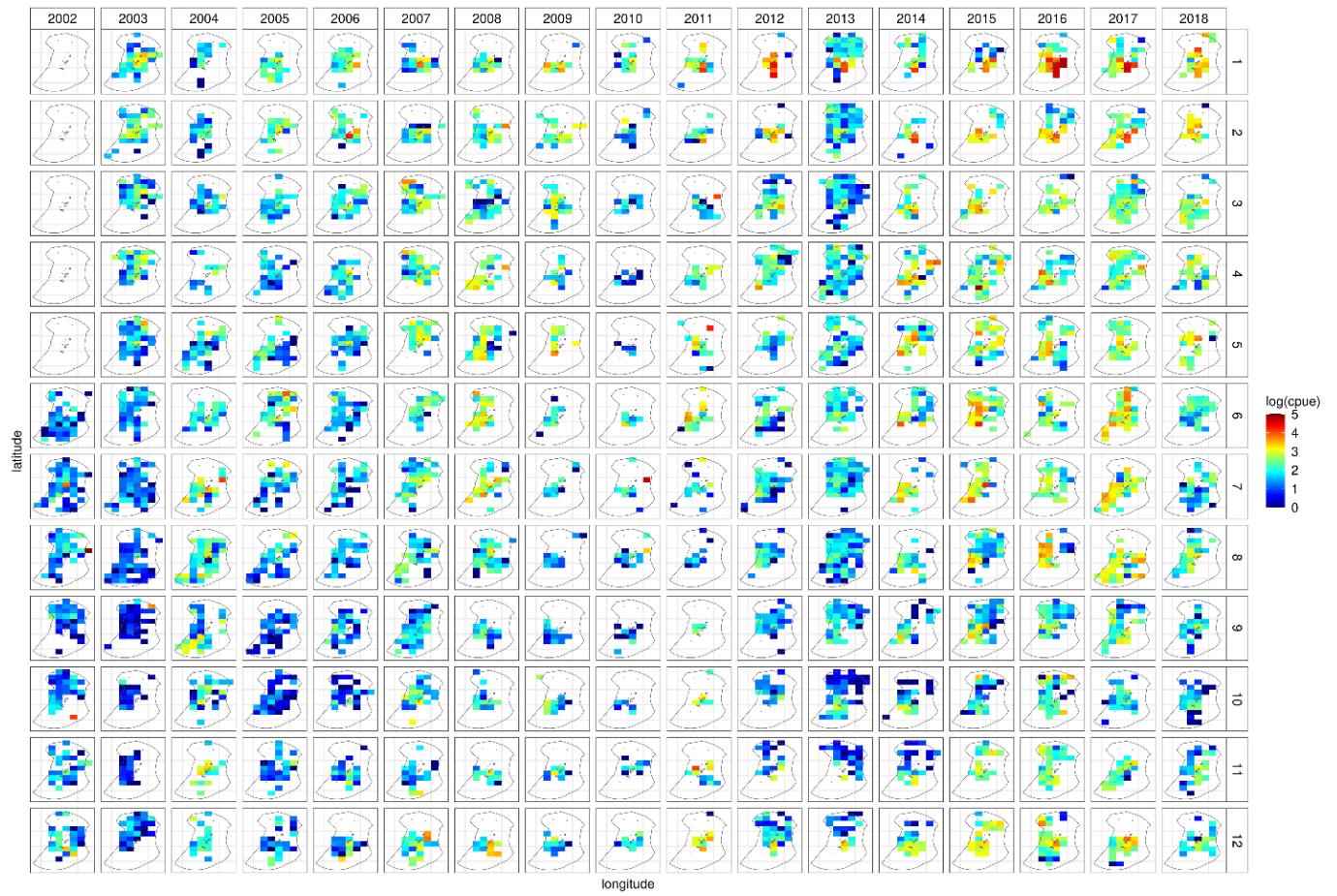


**Figure S1.** Spatio-temporal pattern in the distribution of bigeye tuna in the EEZ, longitude  $14.5^{\circ} S - 20.22^{\circ} S$ , longitude  $171.31^{\circ} W - 179.10^{\circ} W$  of Tonga over time period 2002–2018.



**Figure S2.** Spatio-temporal pattern in the distribution of skipjack tuna in the EEZ, longitude  $14.5^{\circ} S - 20.22^{\circ} S$ , longitude  $171.31^{\circ} W - 179.10^{\circ} W$  of Tonga over time period 2002–2018.



**Figure S3.** Spatio-temporal pattern in the distribution of yellowfin tuna in the EEZ, longitude  $14.5^{\circ} S$ – $20.22^{\circ} S$ , longitude  $171.31^{\circ} W$ – $179.10^{\circ} W$  of Tonga over time period 2002–2018