

# The first 'lost year' of Mediterranean sea turtles: dispersal patterns indicate subregional management units for conservation

Paolo Casale<sup>1,2,\*</sup>, Patrizio Mariani<sup>3</sup>

<sup>1</sup>Department of Biology and Biotechnologies 'Charles Darwin', University of Rome 'La Sapienza', viale dell'Università 32, 00185 Roma, Italy

<sup>2</sup>Centre for Ecology & Conservation, University of Exeter, Cornwall Campus, Cornwall TR10 9EZ, UK

<sup>3</sup>Center for Ocean Life, National Institute for Aquatic Resources, Technical University of Denmark, Kavalergaarden 6, 2920 Charlottenlund, Denmark

\*Corresponding author: paolo.casale1@gmail.com

*Marine Ecology Progress Series 498:263–274 (2014)*

**Supplement.** Simulated dispersal patterns from individual or grouped sea turtle nesting beaches at different dates

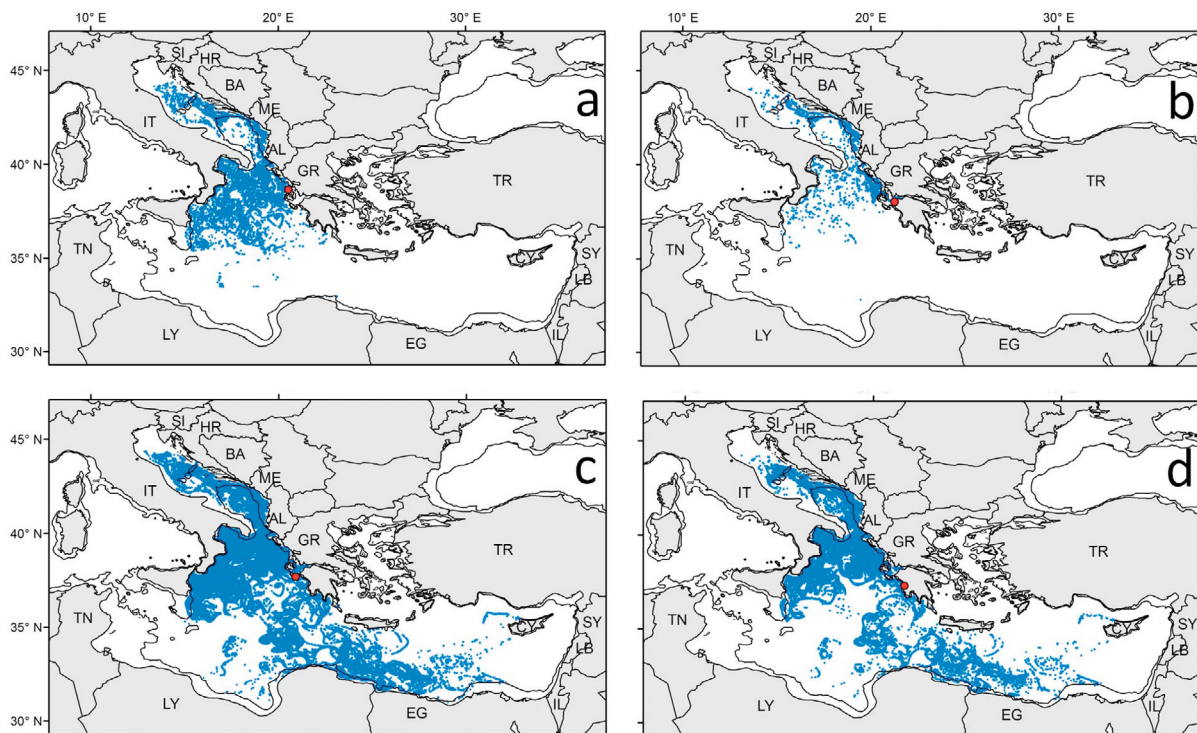


Fig. S1. Position on 1 December of particles released in August-September at Mediterranean nesting areas (circles) of loggerhead turtles: (a) Lefkas Island; (b) Kotychi; (c) Zakynthos (Laganas Bay); (d) Kyparissia Bay

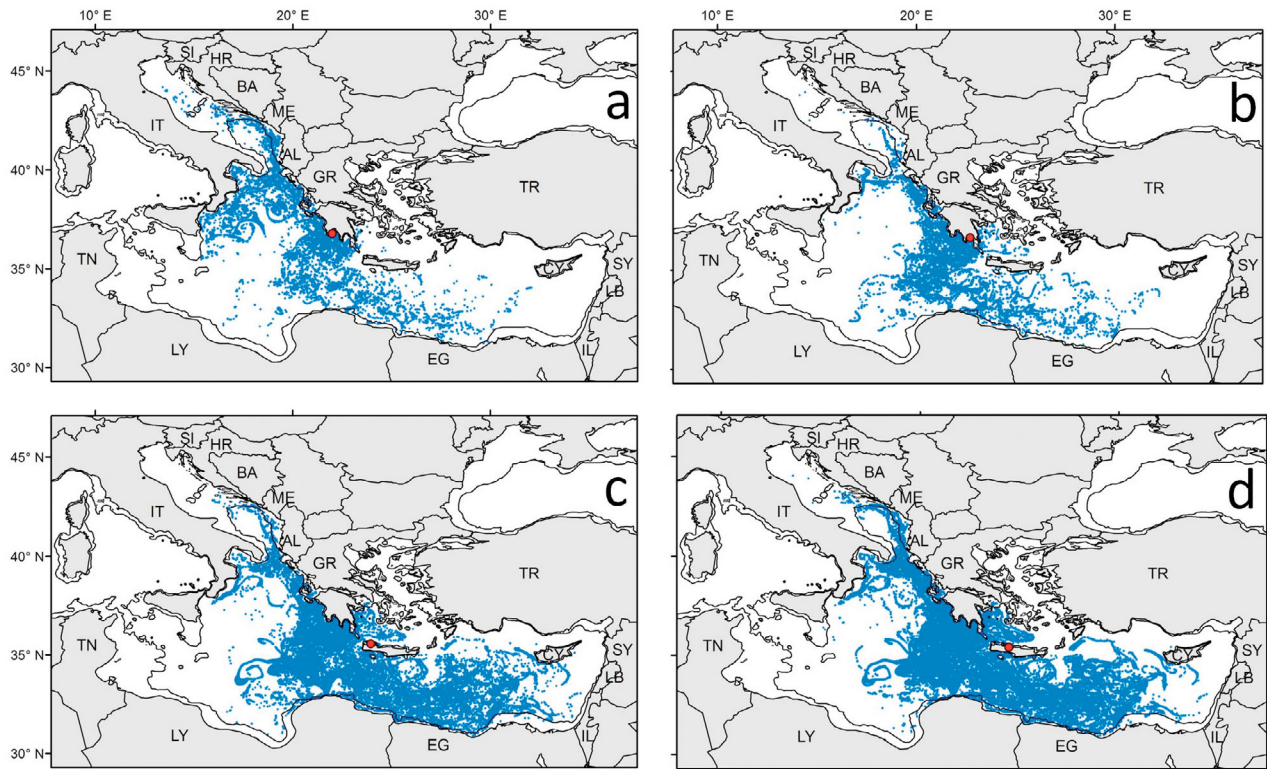


Fig. S2. Position on 1 December of particles released in August-September at Mediterranean nesting areas (circles) of loggerhead turtles: (a) Koroni; (b) Lakonikos Bay; (c) Bay of Chania; (d) Rethymno

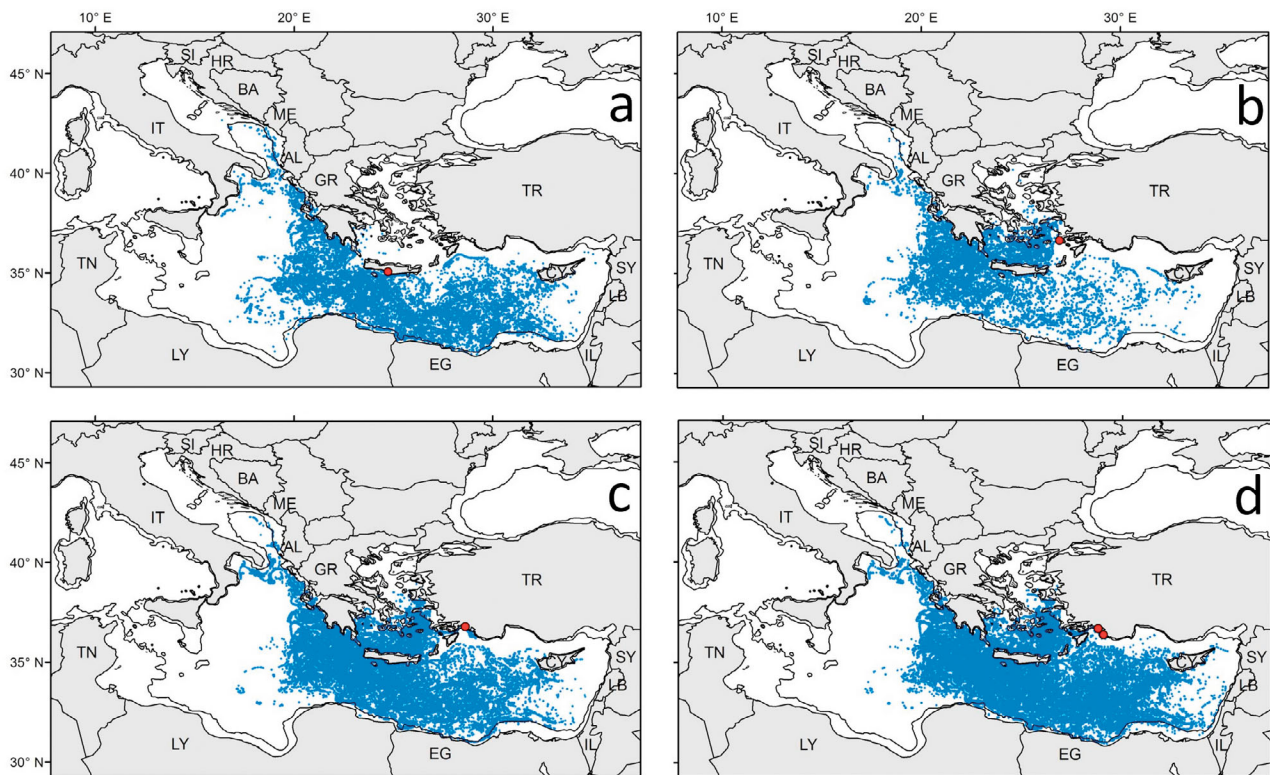


Fig. S3. Position on 1 December of particles released in August-September at Mediterranean nesting areas (circles) of loggerhead turtles: (a) Bay of Messara; (b) Kos Island; (c) Dalyan; (d) Dalaman + Fethiye



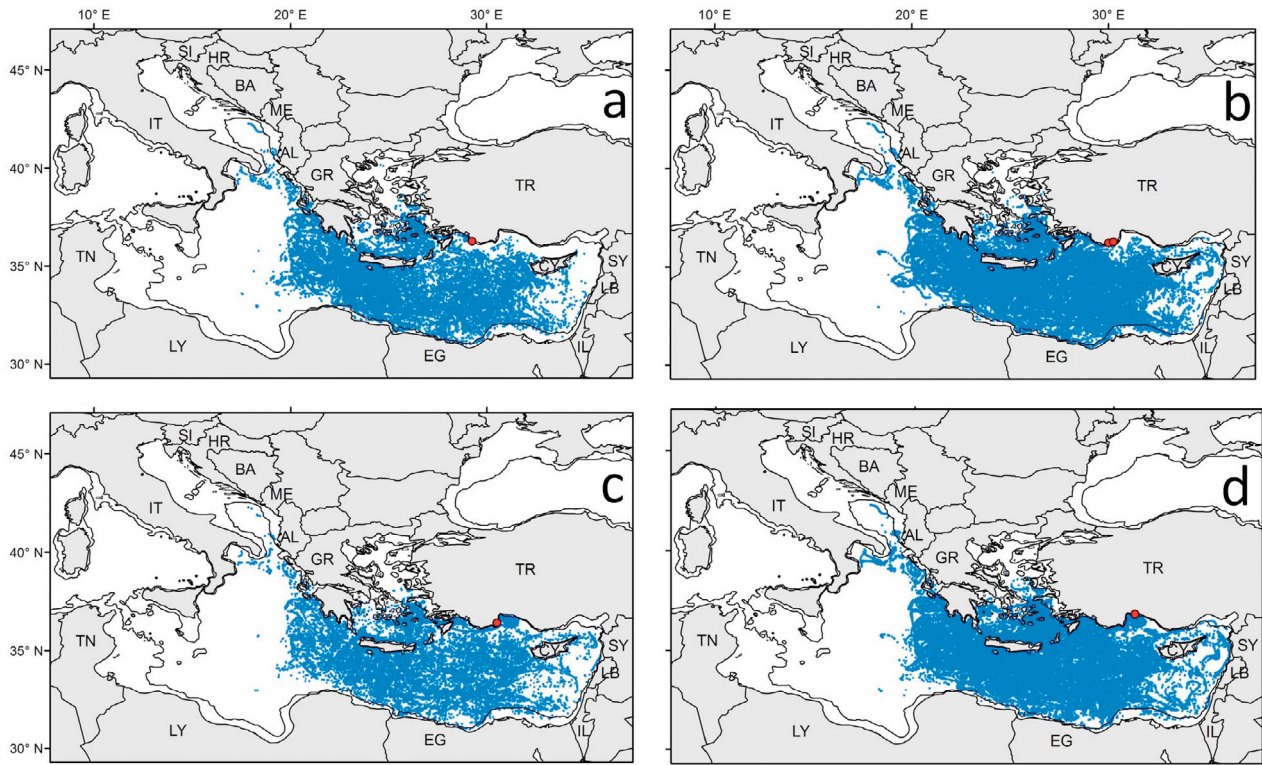


Fig. S4. Position on 1 December of particles released in August-September at Mediterranean nesting areas (circles) of loggerhead turtles: (a) Patara; (b) Kale + Finike-Kumluca; (c) Çıralı; (d) Belek

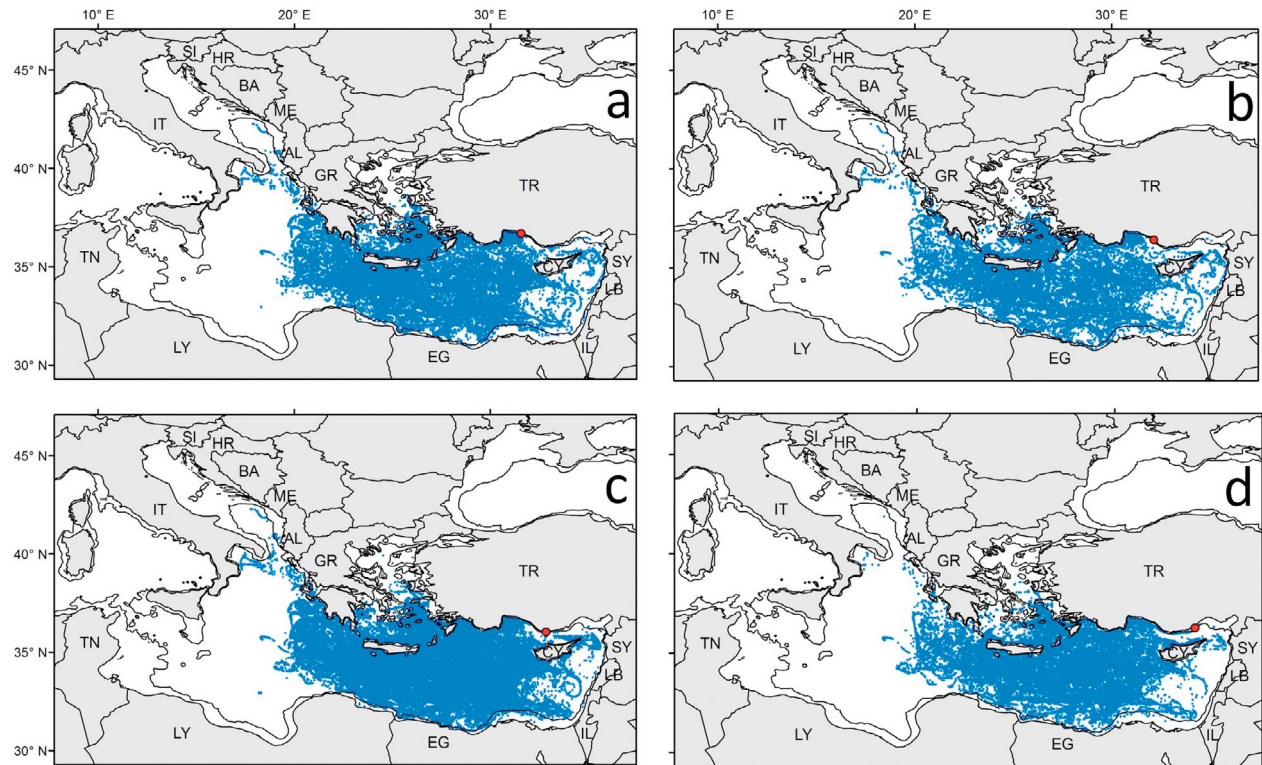


Fig. S5. Position on 1 December of particles released in August-September at Mediterranean nesting areas (circles) of loggerhead turtles: (a) Kızılot; (b) Demirtaş; (c) Anamur; (d) Göksu Delta

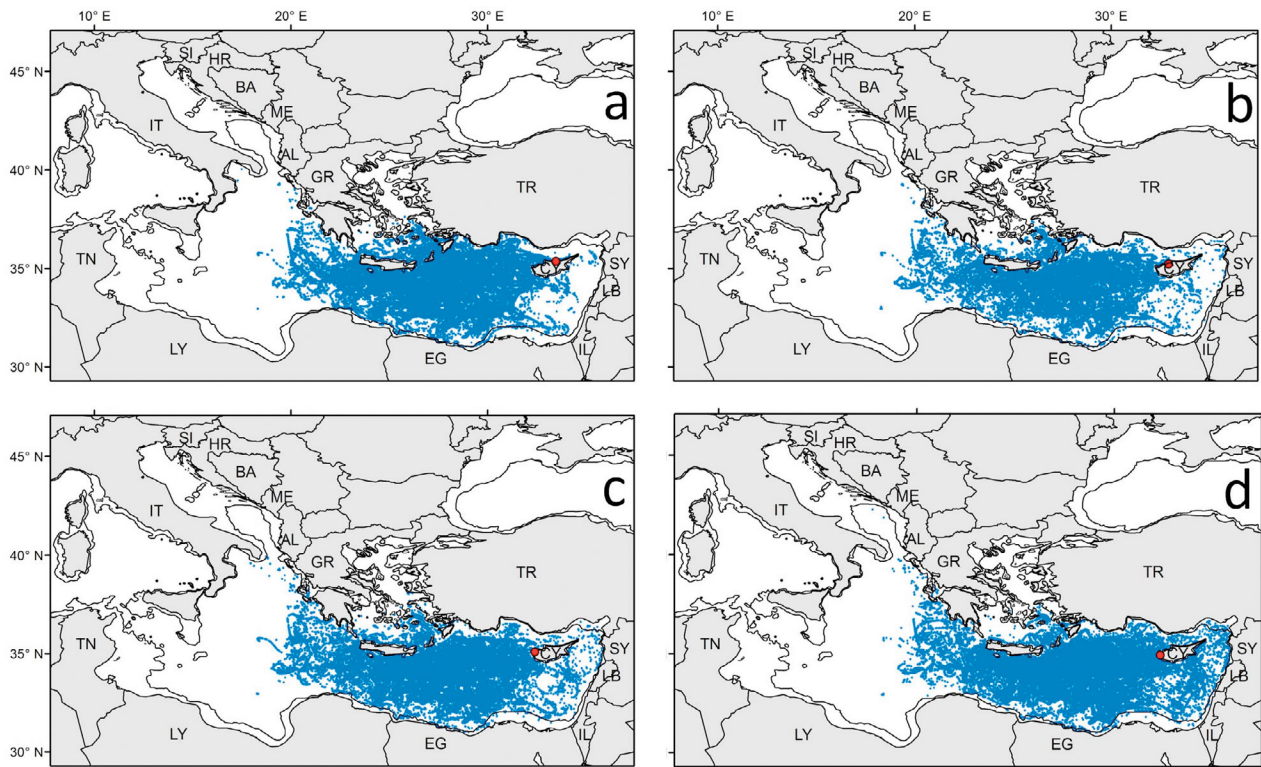


Fig. S6. Position on 1 December of particles released in August-September at Mediterranean nesting areas (circles) of loggerhead turtles: (a) Alagadi; (b) Morphou Bay; (c) Chrysochou Bay; (d) Lara-Toxefra

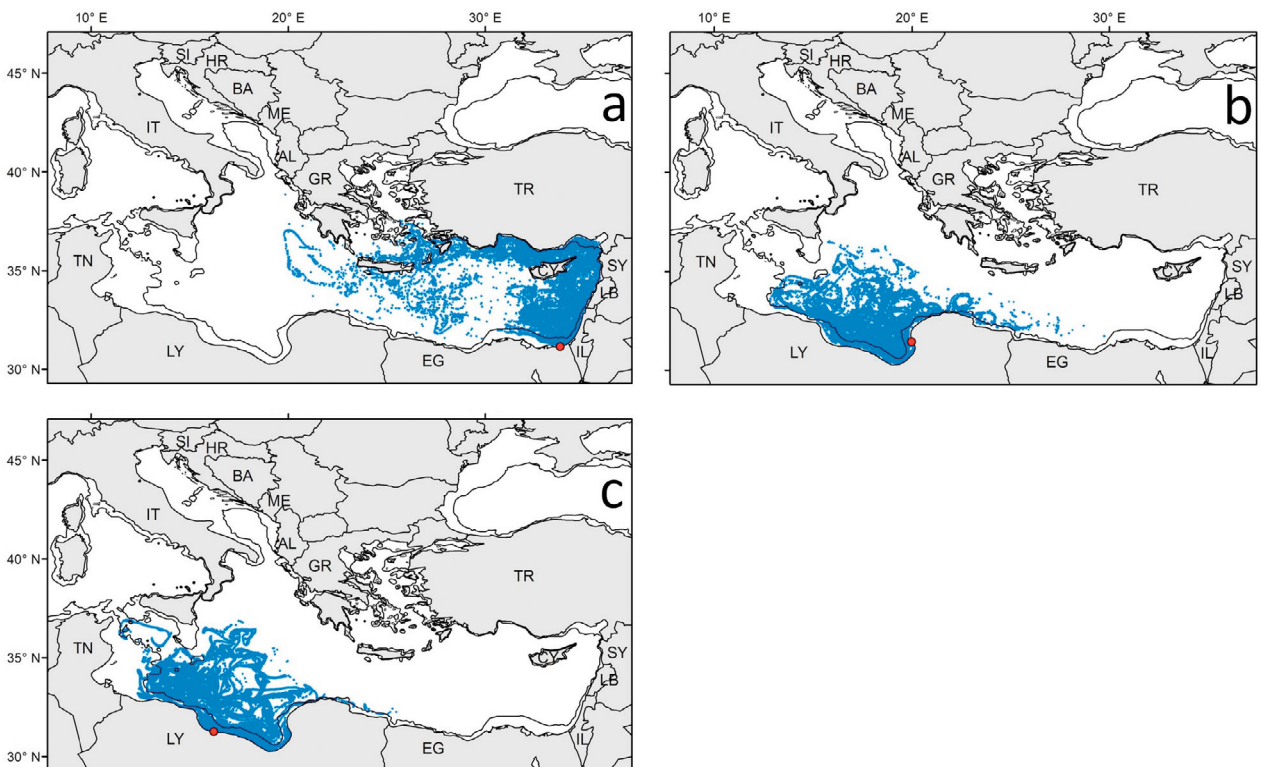


Fig. S7. Position on 1 December of particles released in August-September at Mediterranean nesting areas (circles) of loggerhead turtles: (a) Areash; (b) Al-Mteafila; (c) Al- Ghbeba + Al-thalateen + Al-Arbacen



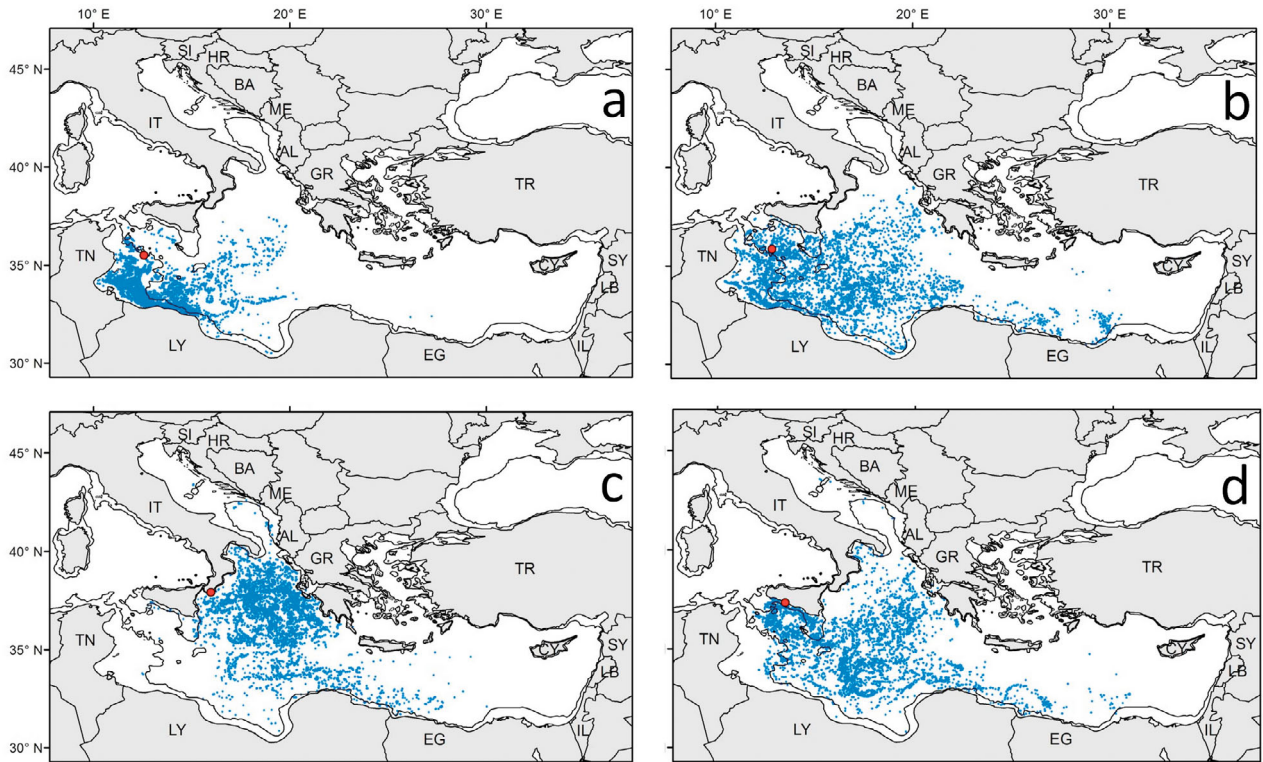


Fig. S8. Position on 1 December of particles released in August-September at Mediterranean nesting areas (circles) of loggerhead turtles: (a) Lampedusa; (b) Linosa; (c) Calabria; (d) Sicilia

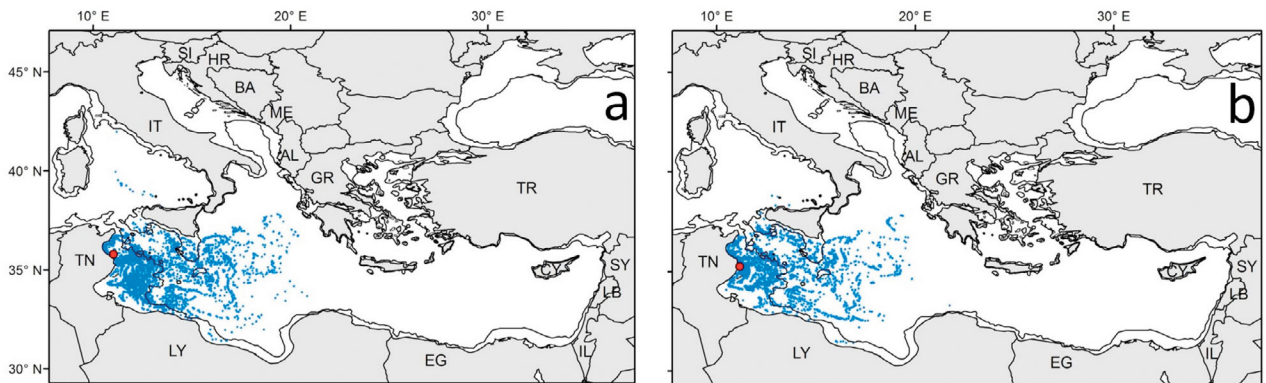


Fig. S9. Position on 1 December of particles released in August-September at Mediterranean nesting areas (circles) of loggerhead turtles: (a) Kuriat; (b) Chebba

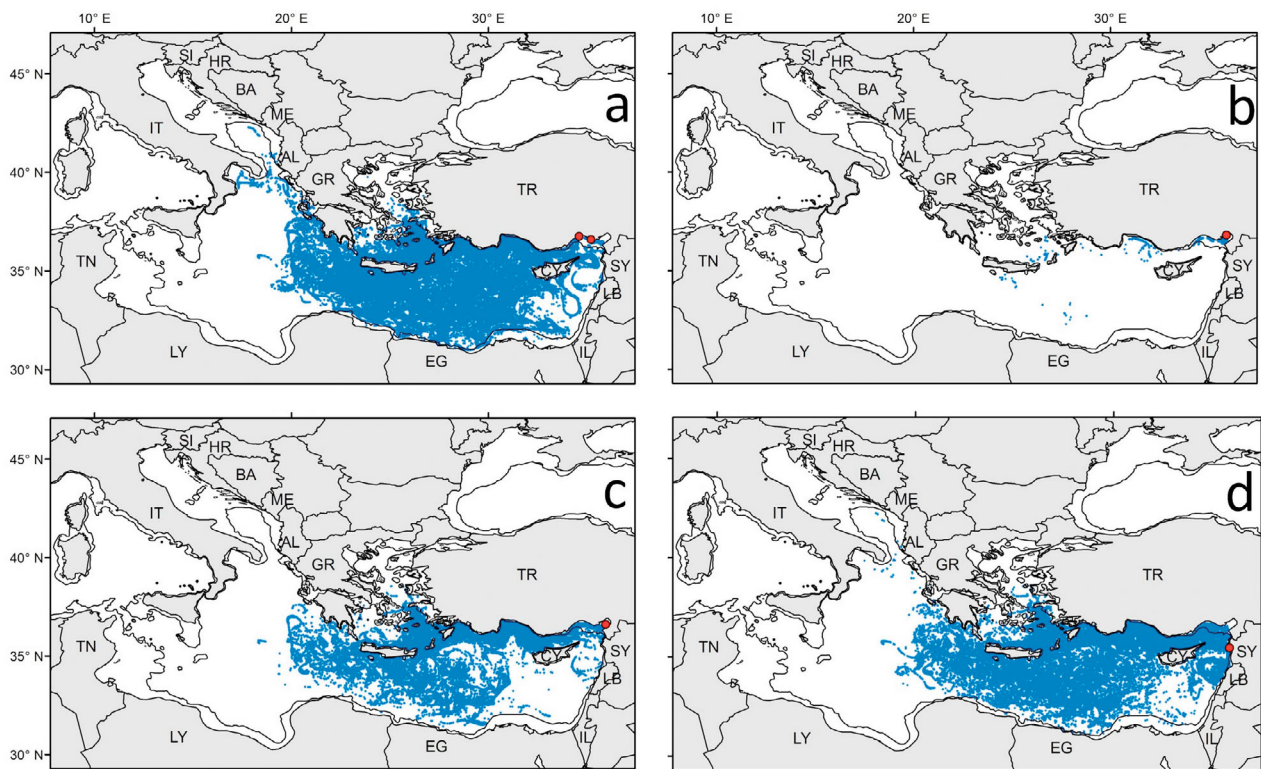


Fig. S10. Position on 1 December of particles released in August-September at Mediterranean nesting areas (circles) of green turtles: (a) Alata + Kazanlı + Akyatan; (b) Sugözü; (c) Samandağ; (d) Latakia

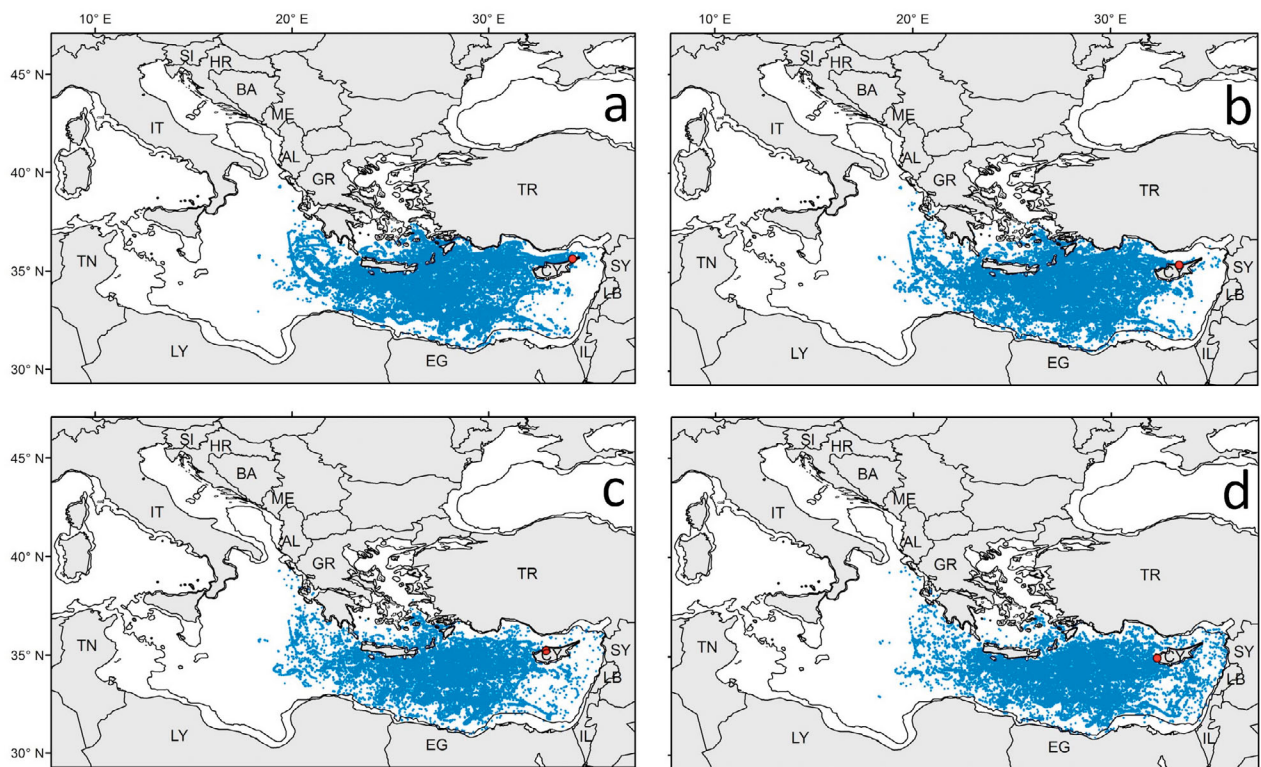


Fig. S11. Position on 1 December of particles released in August-September at Mediterranean nesting areas (circles) of green turtles: (a) North Karpaz; (b) Alagadi; (c) Morphou Bay; (d) Lara-Toxefra



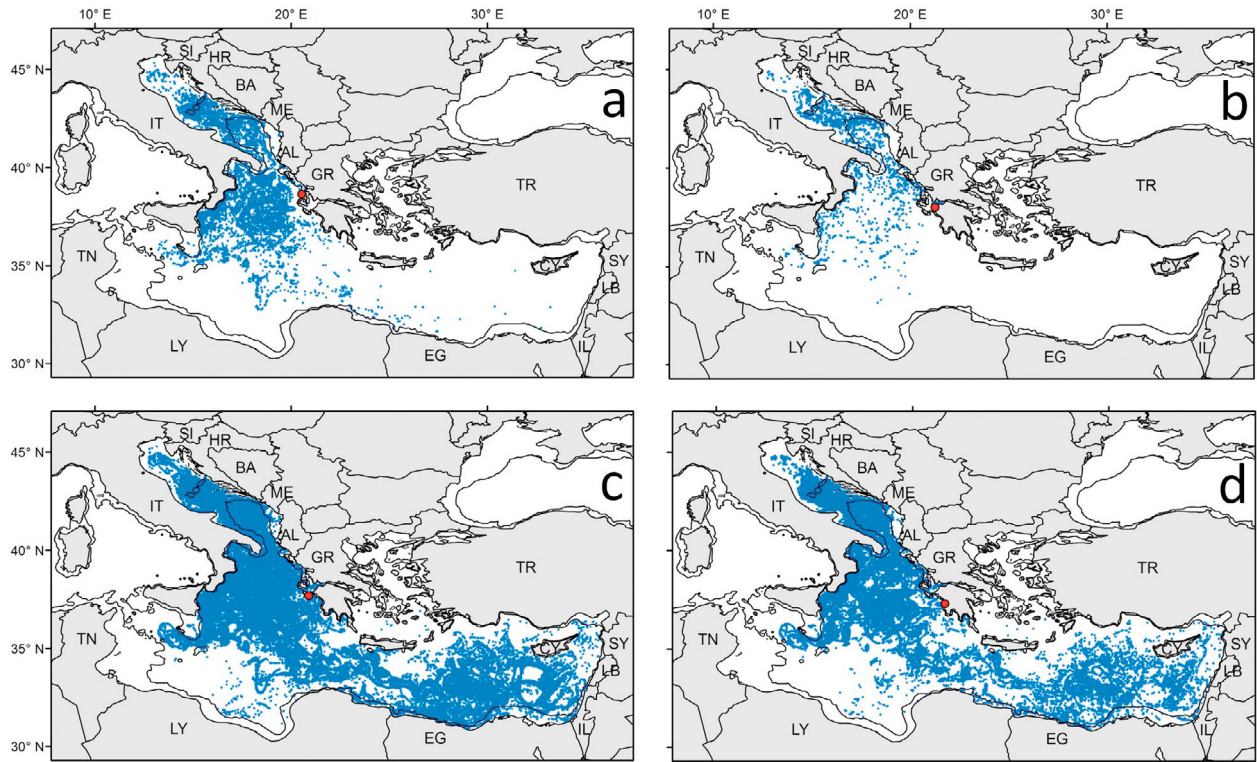


Fig. S12. Position on 1 February of particles released in August-September at Mediterranean nesting areas (circles) of loggerhead turtles: (a) Lefkas Island; (b) Kotychi; (c) Zakynthos (Laganas Bay); (d) Kyparissia Bay

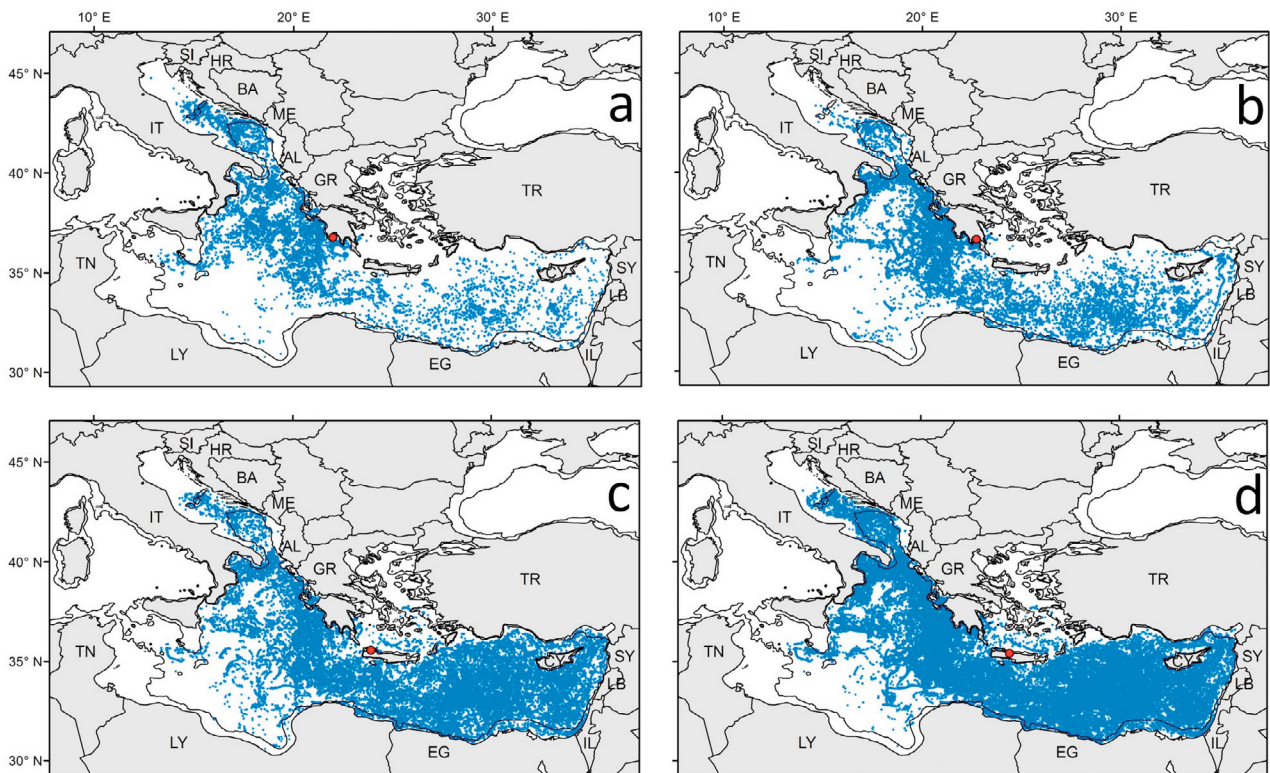


Fig. S13. Position on 1 February of particles released in August-September at Mediterranean nesting areas (circles) of loggerhead turtles: (a) Koroni; (b) Lakonikos Bay; (c) Bay of Chania; (d) Rethymno



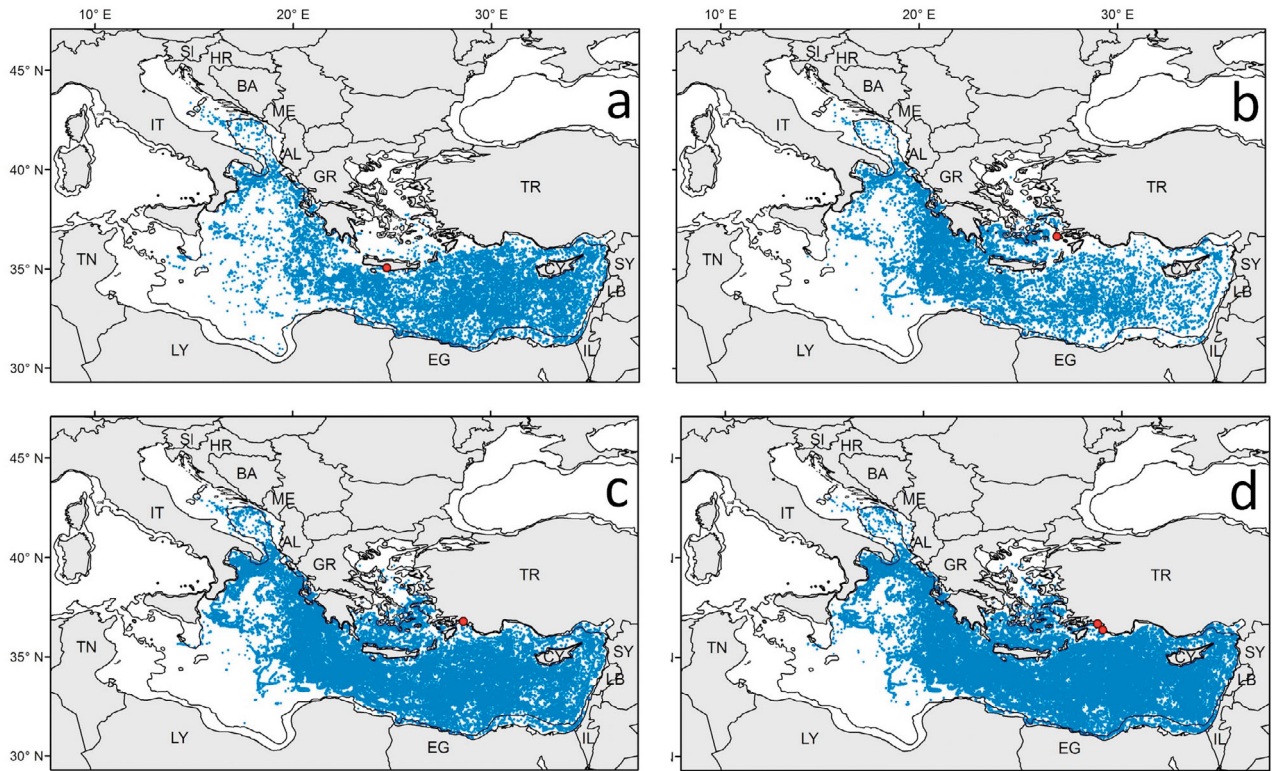


Fig. S14. Position on 1 February of particles released in August-September at Mediterranean nesting areas (circles) of loggerhead turtles: (a) Bay of Messara; (b) Kos Island; (c) Dalyan; (d) Dalaman + Fethiye

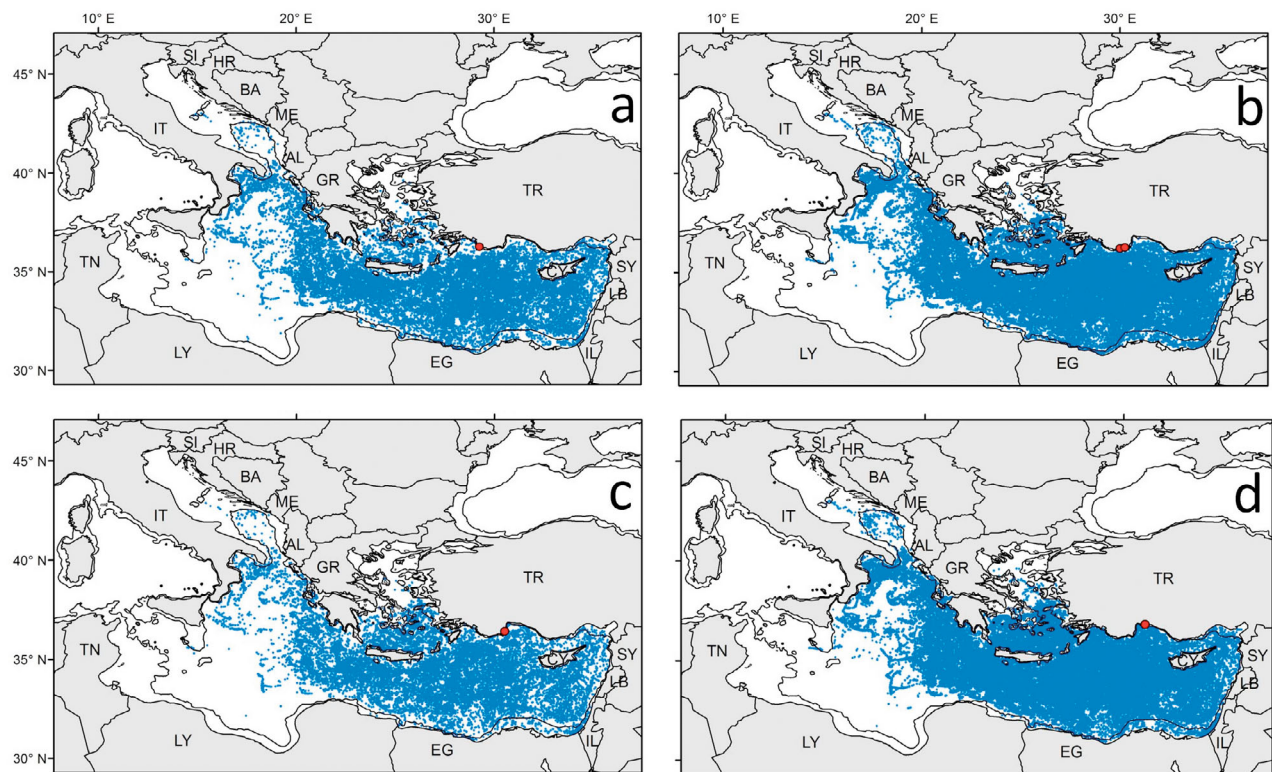


Fig. S15. Position on 1 February of particles released in August-September at Mediterranean nesting areas (circles) of loggerhead turtles: (a) Patara; (b) Kale + Finike-Kumluca; (c) Çıralı; (d) Belek



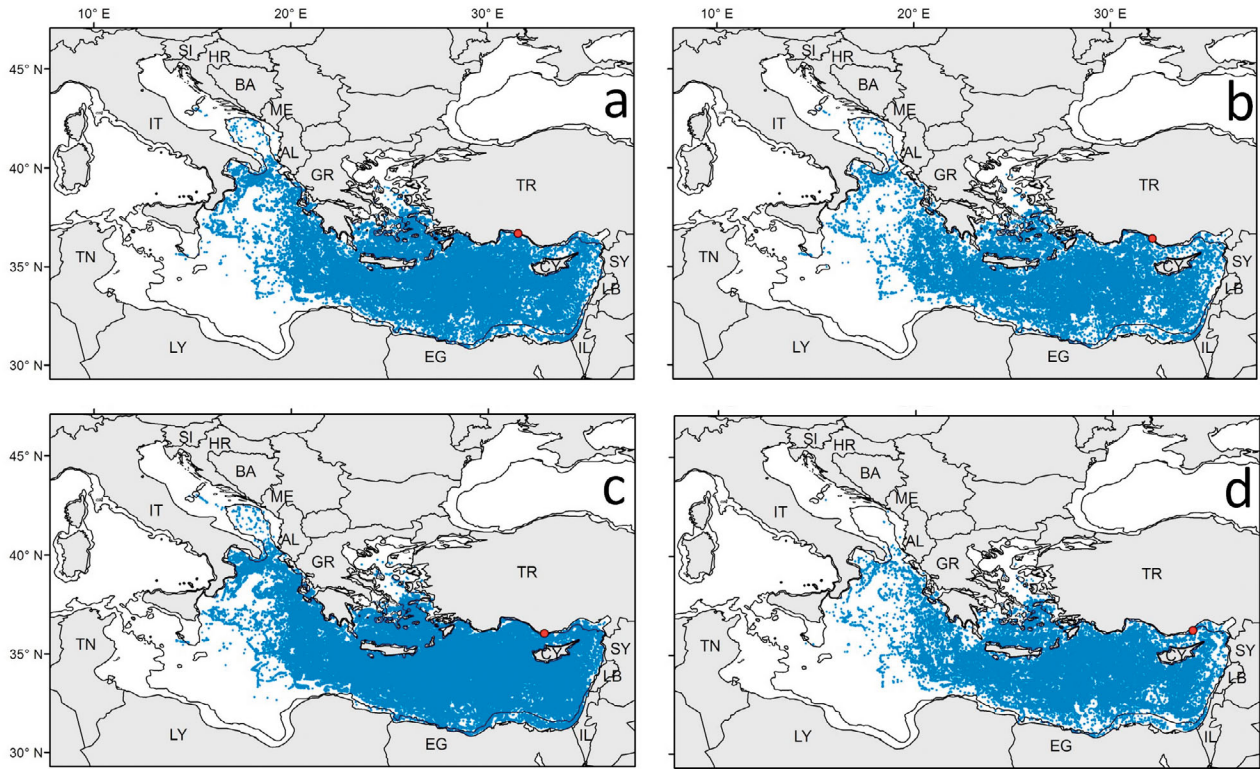


Fig. S16. Position on 1 February of particles released in August-September at Mediterranean nesting areas (circles) of loggerhead turtles: (a) Kızılot; (b) Demirtaş; (c) Anamur; (d) Göksu Delta

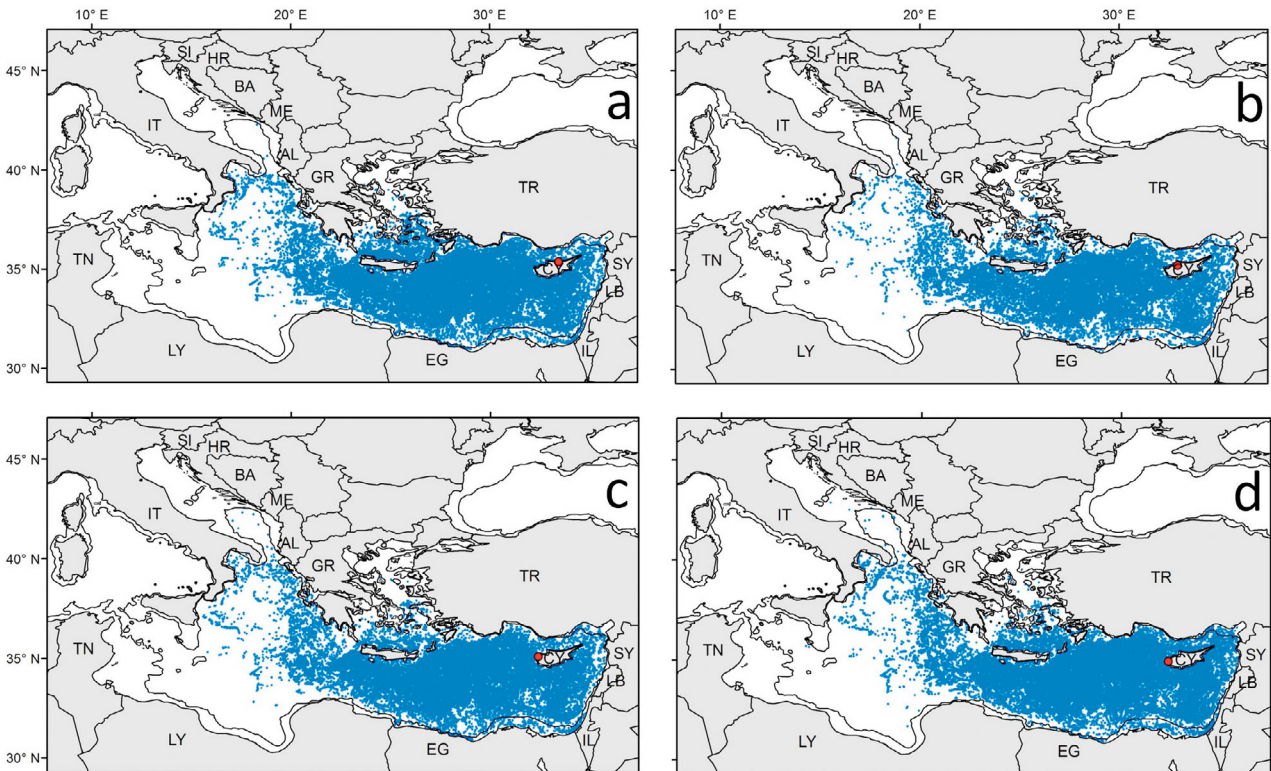


Fig. S17. Position on 1 February of particles released in August-September at Mediterranean nesting areas (circles) of loggerhead turtles: (a) Alagadi; (b) Morphou Bay; (c) Chrysochou Bay; (d) Lara-Toxefra

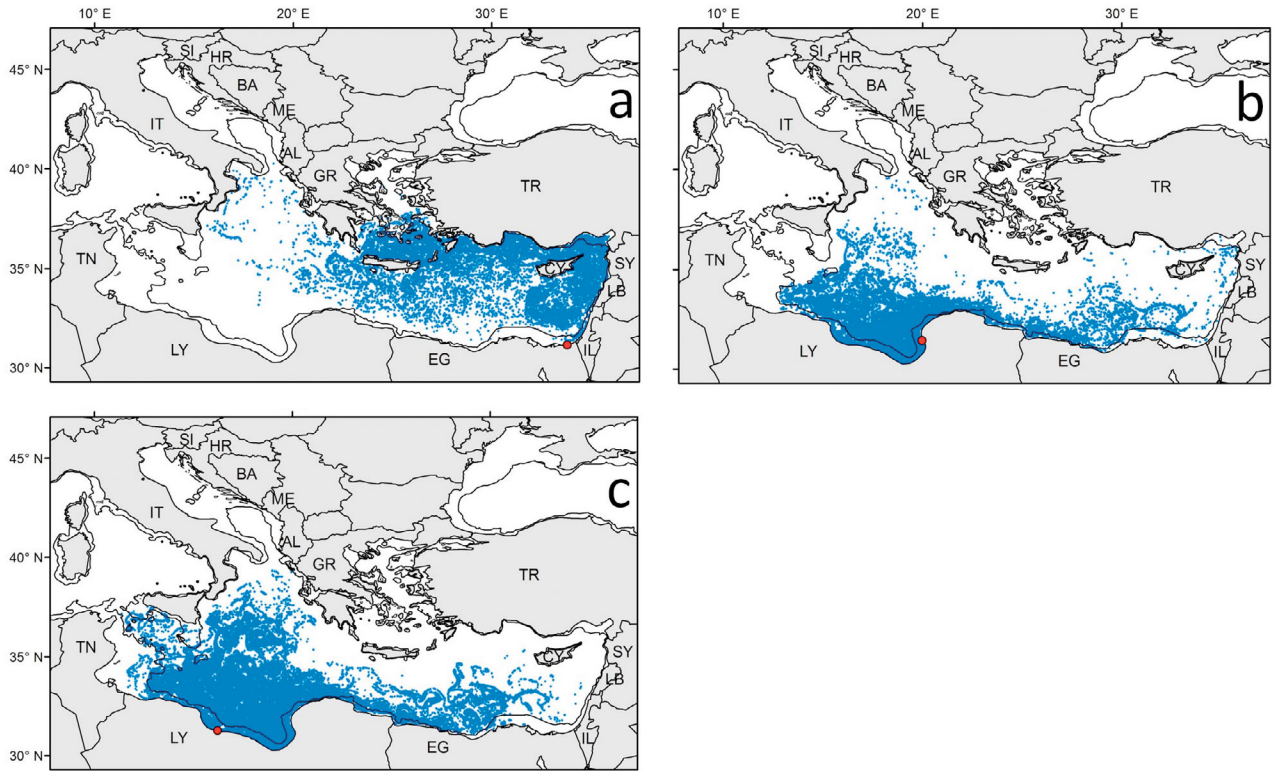


Fig. S18. Position on 1 February of particles released in August-September at Mediterranean nesting areas (circles) of loggerhead turtles: (a) Areash; (b) Al-Mteafila; (c) Al- Ghbeba + Al-thalateen + Al-Arbreen

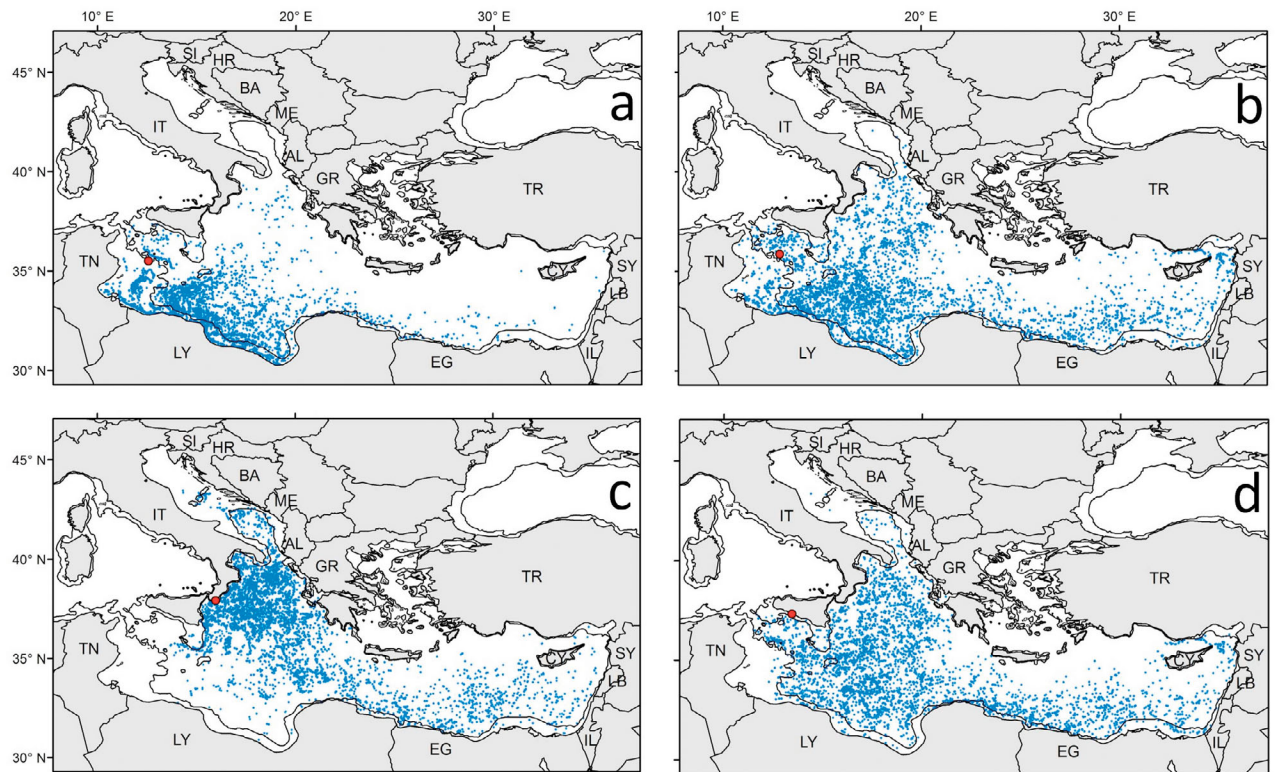


Fig. S19. Position on 1 February of particles released in August-September at Mediterranean nesting areas (circles) of loggerhead turtles: (a) Lampedusa; (b) Linosa; (c) Calabria; (d) Sicilia



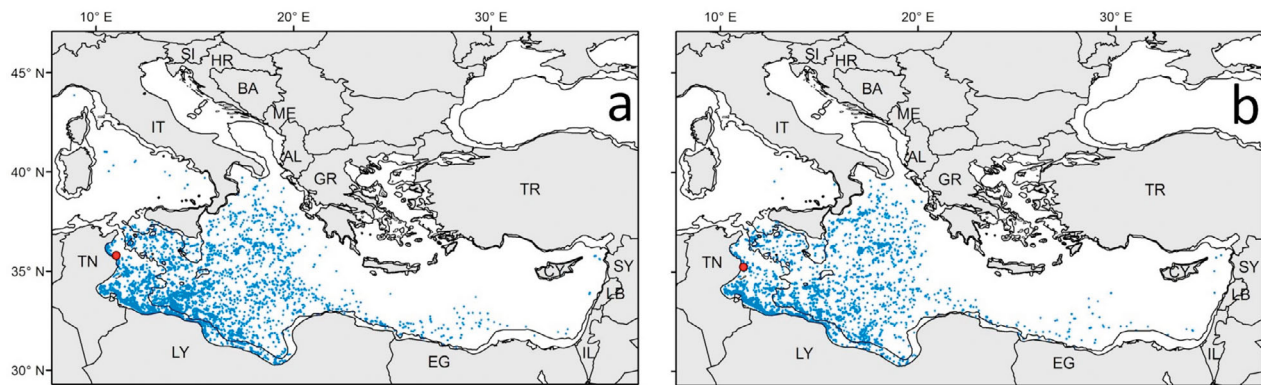


Fig. S20. Position on 1 February of particles released in August-September at Mediterranean nesting areas (circles) of loggerhead turtles: (a) Kuriat; (b) Chebba

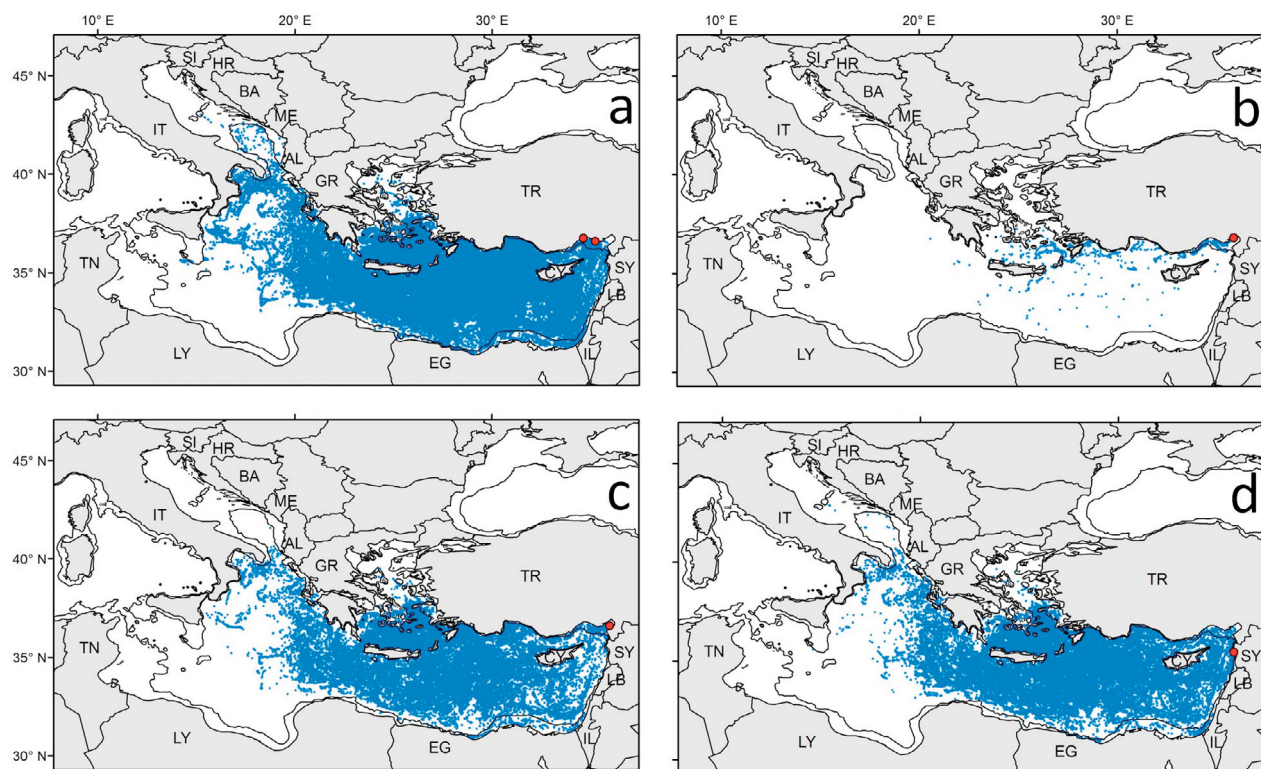


Fig. S21. Position on 1 February of particles released in August-September at Mediterranean nesting areas (circles) of green turtles: (a) Alata + Kazanlı + Akyatan; (b) Sugözü; (c) Samandağ; (d) Latakia

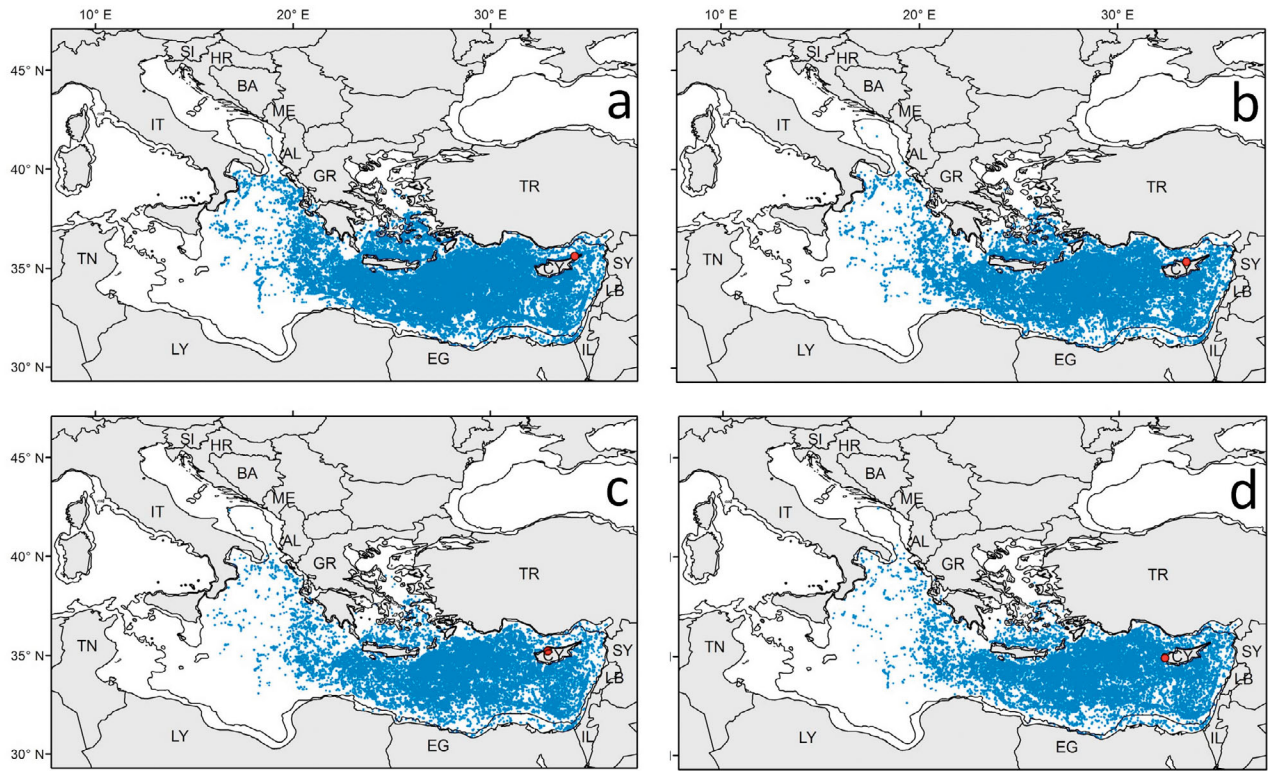


Fig. S22. Position on 1 February of particles released in August-September at Mediterranean nesting areas (circles) of green turtles: (a) North Karpaz; (b) Alagadi; (c) Morphou Bay; (d) Lara-Toxefra



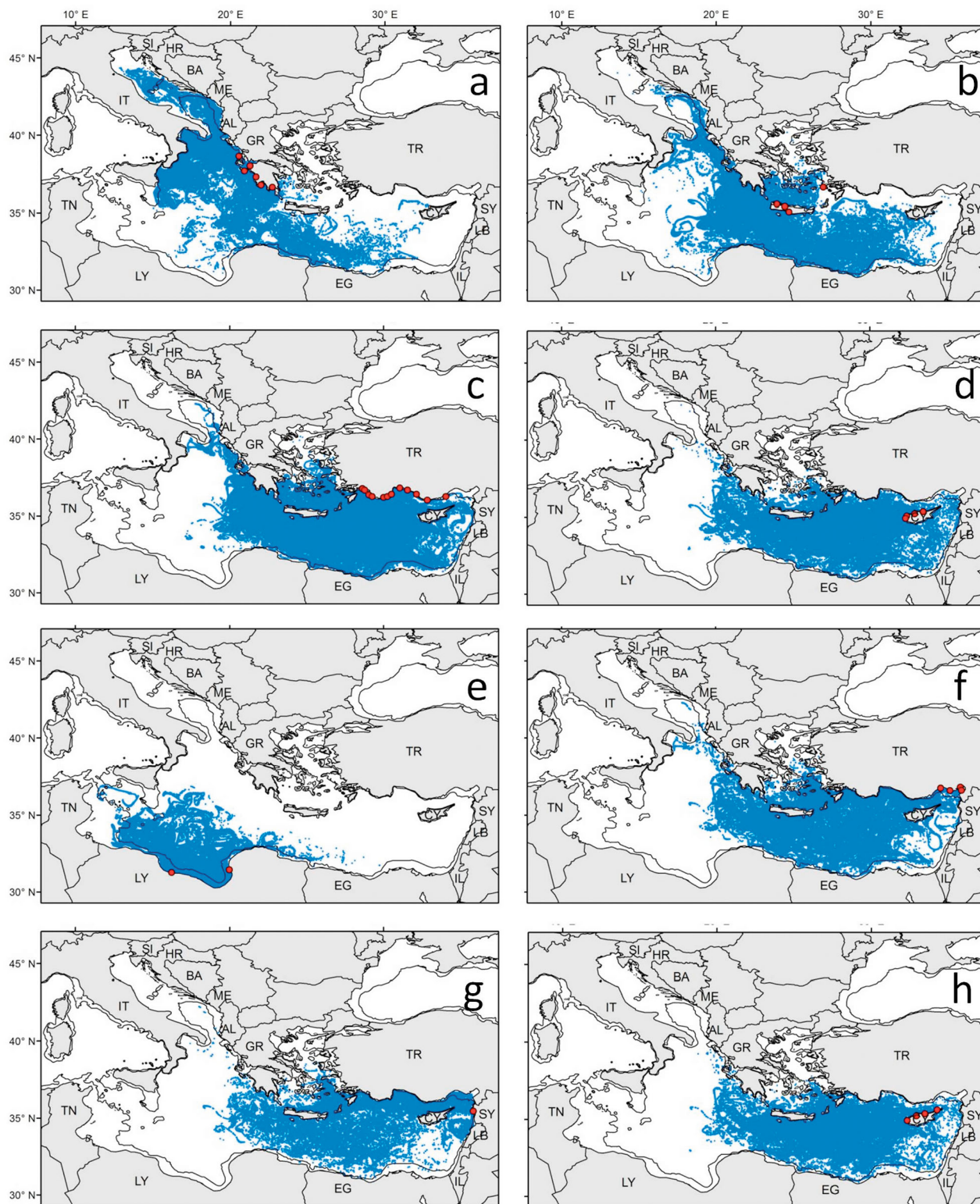


Fig. S23. Position on 1 December of particles released in August-September at Mediterranean nesting areas of (a–e) loggerhead and (f–h) green turtles: (a) western Greece; (b) eastern Greece; (c,f) Turkey; (d,h) Cyprus; (e) Libya; (g) Syria. Circles indicate nesting sites (as shown in Fig. 1)

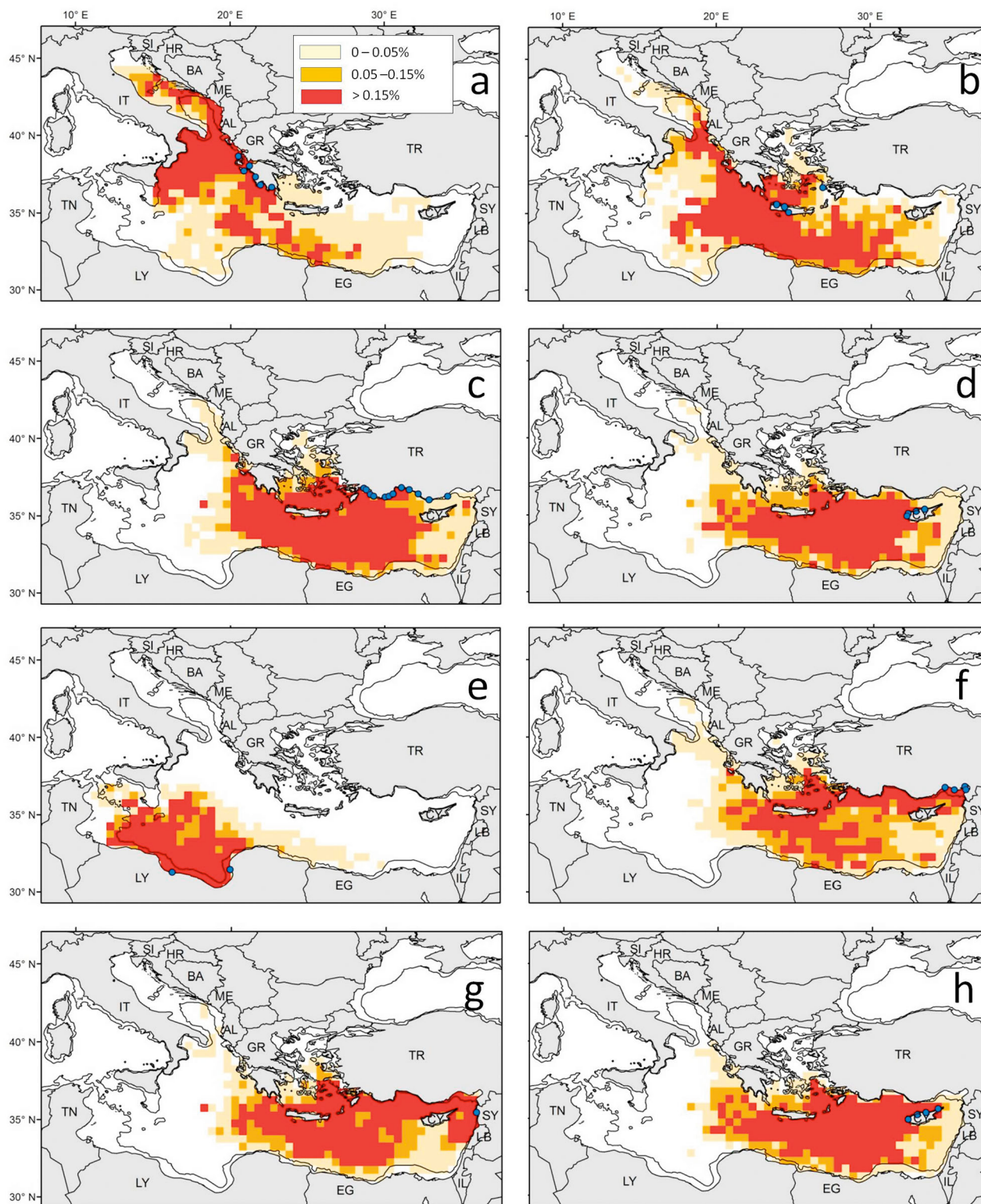


Fig. S24. Relative density on 1 December of particles released in August-September at Mediterranean nesting areas of (a–e) loggerhead and (f–h) green turtles: (a) western Greece; (b) eastern Greece; (c,f) Turkey; (d,h) Cyprus; (e) Libya; (g) Syria. Circles indicate nesting sites (as shown in Fig. 1)



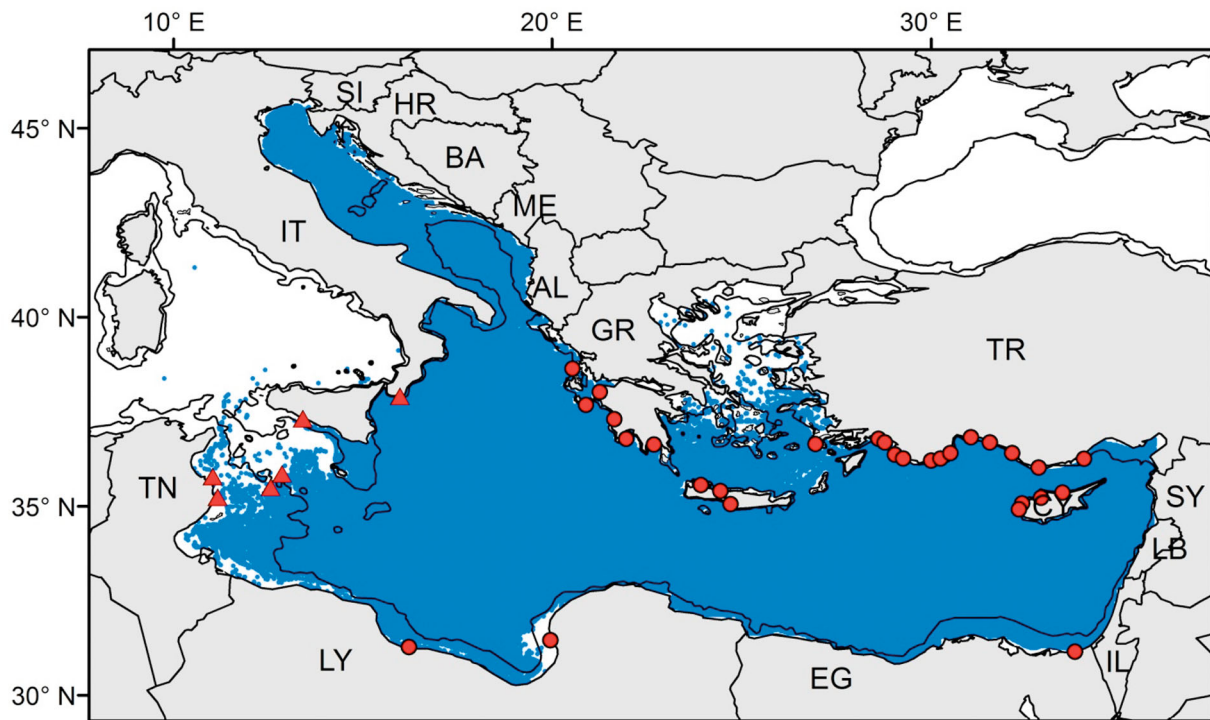


Fig. S25. Position in July of particles released in August-September of the previous year at Mediterranean nesting areas of loggerhead turtles. Circles and triangles indicate major and minor nesting sites (as shown in Fig. 1)

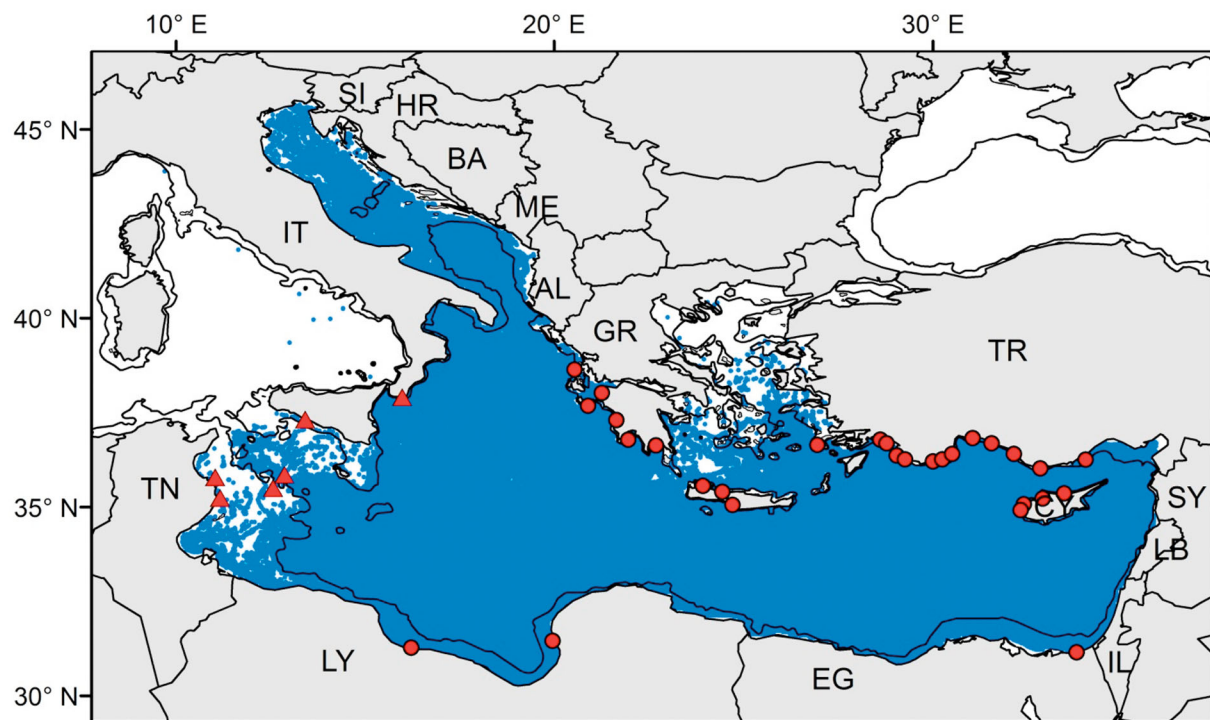


Fig. S26. Position in December of particles released in August-September of the previous year at Mediterranean nesting areas of loggerhead turtles. Circles and triangles indicate major and minor nesting sites (as shown in Fig. 1)