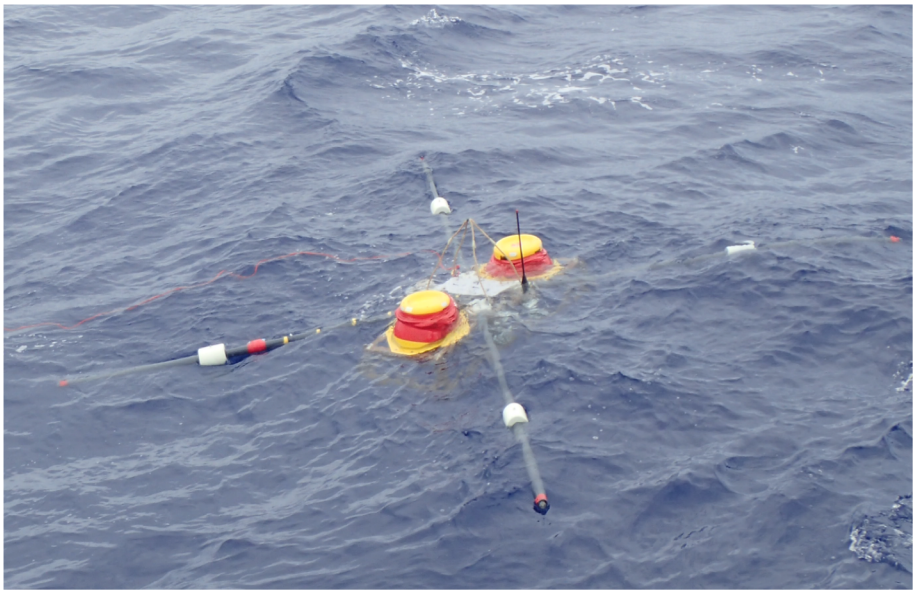

Figure S1. Photo shows an OBEM float on the sea surface. It does not sink unless one of the glass spheres is broken or is flooded by water.

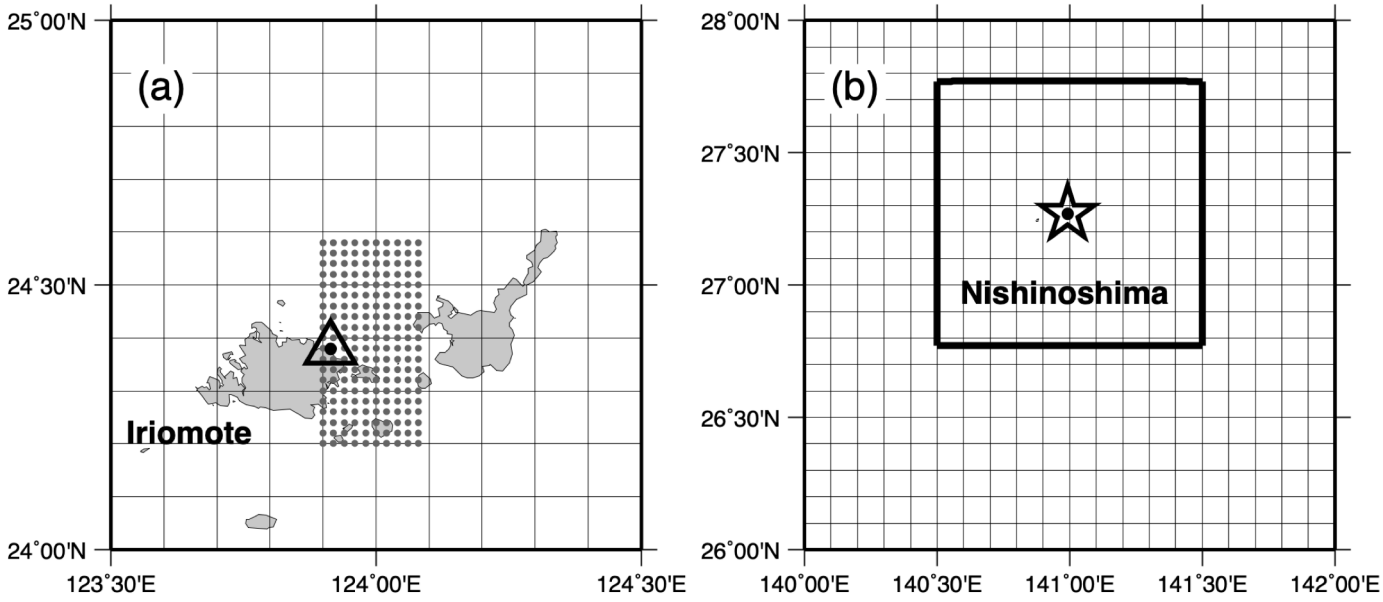

Figure S2. (a) Initial particle positions around Iriomote Island in the particle back-tracking simulations. Dots are the initial particle positions, and the center of the triangle marks where the OBEM was found on the beach. These initial positions were set to include only the eastern side of the true arrival position because much of the western side includes the island itself, and because the arrival site faces the east. (b) Target area around Nishinoshima in the particle back-tracking simulations. The thick square encloses the 1° × 1° target area around Nishinoshima (center of the star). Any particles that were traced back to this target area were considered to have originated from Nishinoshima.

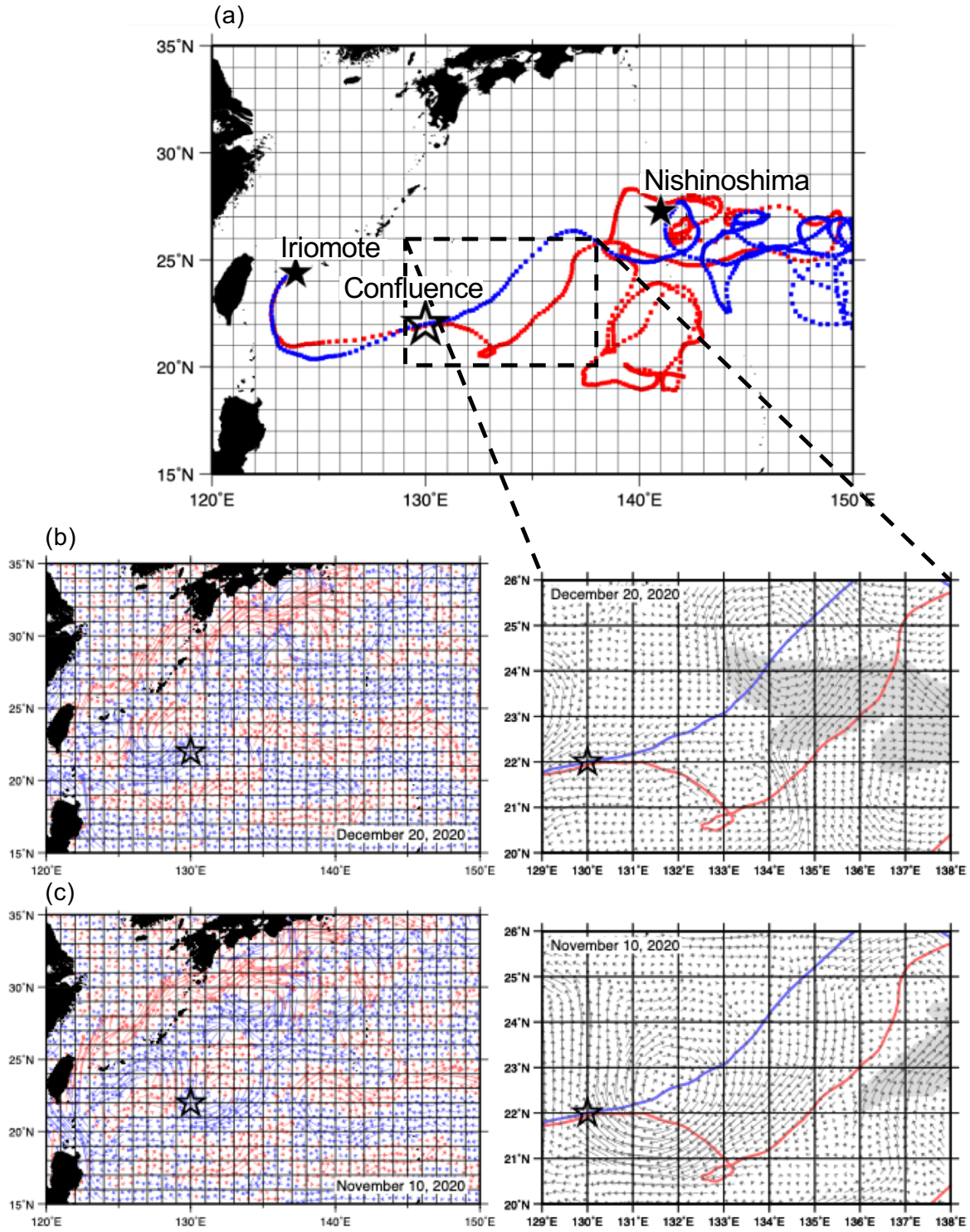

Figure S3. (a) Two typical particle trajectories. The open star shows their confluence, and the black stars show their two end points, Nishinoshima and Iriomote Island. Dashed rectangular indicates the enlarged area. (b) Velocity field on 20 December 2020. The open star shows the confluence point. Red vectors in the left panel represent eastward flow, and blue vectors represent westward flow. The right panel shows the particle trajectories as same as Fig. S3a on the enlarged map of the area around the confluence point and the STCC. Shading highlights the remarkable eastward current. (c) Velocity field on 10 November 2020.