

much diminution in its strength, until we lost the trades in latitude 19° N. The drift by this current was two hundred and seventy-one miles, in a direction S. 71° W.

At the Sandwich Islands, I am not disposed to think, from any observations I had an opportunity of making, that there are any regular currents, or any set of the waters, except what is caused by the winds. There is in fact rarely any difficulty in beating to windward; the time of passing between the islands is about the same at all seasons of the year; and I found none in beating up to my port in a reasonable time, after falling to leeward of it. Their position is assimilated to St. Helena. The temperature of the waters around these islands is about the same as that which prevails in the ocean in the neighbourhood, a fact which, as I have already stated, I consider to be a proof that no polar current reaches them.

Our passage from the Hawaiian Group to the Northwest Coast, gave interesting results in relation to the currents. They were irregular until we reached the latitude of 37° N.; after which we were strongly affected by a southeast current, whose influence continued until we reached the coast of Oregon. At this time it ran at the rate of fifty miles in twenty-four hours; but when the Peacock traversed this same space, ninety days later, the velocity had not only diminished, but what current was found, was nearly in an opposite direction. In relation to the extent of this southeast current in the months of March and April, I have no precise information, nor can I supply it from others, since those who had previously visited this part of the ocean had not paid sufficient attention to this subject to furnish any precise data. All however agree in the fact, that they were affected by a southeast current after reaching the longitude of 130° W., and the latitude of 35° N.

Within the space embraced by the meridians of 145° and 160° W., and the parallels of 28° and 35° N., the currents appear to lose themselves; and this is therefore to be considered as a nucleus.

This southeast current may be either a return of an equatorial current, or a direct polar stream. Its temperature would rather lead to the latter conclusion; yet there is an equatorial stream on the opposite shores of the Pacific, flowing to the northeast: this is well known to exist on the coast of Japan, extending to the Aleutian Islands, and passing northwards along the coast of Kamtschatka. Of its existence off the latter country we have many satisfactory proofs, and more particularly those of Captain Beechey on the temperature of the sea which he found in latitude 67° N., near the Icy Cape. The latter fact leaves no doubt that the influence of a current coming from a