

The appearance of the vegetation shows this difference of climate more strongly than the thermometer; for on the lee side, the islands have a barren and burnt appearance, while the weather sides exhibit a luxuriant tropical vegetation.

Our stay in this group was not long enough to enable us to speak of the vicissitudes of the seasons, yet we had time to observe a great change in the plants, whose flowers succeeded each other. It is by these that the natives are guided in their agricultural occupations. Thus the scarlet flowers of the *Erythrina indica*, mark the season of planting, and, according to some of the white residents, the natives encourage the growth of this plant near the towns, for the purpose of pointing out the proper time for this important operation in agriculture.

The mean temperature at Ovolau, during the six weeks that the observatory was established there, was 77·81°. The barometer stood at 30·126 in. The lowest temperature was 62°; the highest 96°. The first occurred at 4 A. M. on the 23d, the last at 2 P. M. on the 25th June.

The only bad weather that was experienced in the Feejee Group, was from the 7th to the 11th July, during which time the wind blew constantly from the southeast, and was attended with a light rain.

The winds, from April to November, prevail from the east-northeast to southeast quarter, at times blowing a fresh trade-wind. From November to April northerly winds are often experienced, and in the months of February and March heavy gales are frequent. They usually begin at the northeast, and pass around to the north and northwest, from which quarters they blow with most violence; then hauling to the westward, they moderate. They generally last two or three days. A very heavy gale was experienced from 22d of February to the 25th, which may have been the same that was felt by us at New Zealand, on the 1st of March. If they were connected, it would make the vortex upwards of six hundred miles in diameter. The only data I was enabled to get, at all to be depended upon, was from Captain Eagleston, who was lying in his ship under Toba Peak, on the north shore of Vitilevu. The gale began from the northeast, with heavy rain, on the morning of the 22d. During the night, and morning of the 23d, it was more to the north, increasing with violent gusts. They let go a third anchor, and sent down the topmasts and lower yards. On the 24th, the gale was the same, attended with much rain and wind, hauling to the westward at midnight of the 25th. It became northwest in the morning, when it began to moderate, the wind hauling gradually to the southward, when it cleared off. The missionaries could give me no further information, than that the gale had lasted four days. This gale was not felt at Tonga, although they had strong winds