



## **On the decrease in the Baiu precipitation and heavy rainfall days after ~2000 around the northwestern part of Kyushu district in the western Japan**

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Around the western part of Japan Islands, it is well known that huge precipitation is brought in East Asia during warm season with several abrupt seasonal transitions of the large-scale atmospheric fields. Thus, in order to understand the change in rainfall climate in East Asia in association with the Global warming, to describe how the precipitation features including appearance tendency of the multi-scale precipitation systems has been changed around the frontal zone in East Asia for each stage of the seasonal march. As the first step for that, the present study examined the precipitation features from June to July and its recent change in the western part of the Japan Islands (where the Baiu precipitation is especially large climatologically), based on the daily precipitation data at the surface meteorological stations in Japan for 1971-2008. The total precipitation decreased in the Baiu season at Nagasaki (northwestern part of Kyushu in the western Japan) decreased after ~2000, mainly due to that in June. The area with large decrease in precipitation in June as in Nagasaki after ~2000 extends widely in the northwestern part of Kyushu, while the precipitation in the southern part of Kyushu and Southwest Islands area increased in June. Such regional contrast of precipitation change is remarkable in late June (the mature stage of the Baiu season in the Japan Islands). However, just before that stage (early June), precipitation decreased after ~2000 in both the northern and the southern Kyushu. The present study reveals that the decrease in total precipitation as at Nagasaki in June after ~2000 was greatly reflected by that in contribution of the heavy rainfall days. Furthermore, it is interesting that the total number of “persistent rainfall days” also decreased considerably, together with the increase in that of “persistent no rainfall days” there.