

Variability in Environmental Flow Metrics to Hydroclimatic Extremes

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The patterns of occurrence of typhoons in North Pacific region are constantly changing with the increase of temperature in sea surface and the occurrence of El Nino and La Nina and changes of their development caused by global warming. In addition, alterations of flow regimes caused by large-scale hydraulic construction projects in the past few years and changes in precipitation patterns caused by climate change have imposed increased stress on hydroecology while the indiscreet utilization of water resources has a negative environmental impact on the water flows in the natural rivers and streams and hydroecological structures. The purpose of this study is to explore the impact of altered hydrologic regime on stream and riparian ecosystems that are most vulnerable to climate variability and extremes such as typhoons.

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