

## **An Analysis on Gravel of Sand-Gravel Bar at Gneiss or Granite Area of the Upper Hongcheon River in South Korea**

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**Abstract :** This study is an analysis on gravel of sand-gravel bar that stretches variously in the Duchon and Naechon stream basins, which are situated on Hong-Cheon River (a well-developed sand-gravel bar in upstream river) basins in Korea. Naechon stream mostly flows through granite zone but Duchon stream mostly flows through gneiss zone. The characteristics of gravel in the sand-gravel bar of these two branches in the upper Hongcheon River were analyzed in this study in order to understand the geomorphic development of streams depending on the differences of bedrock. Through the analysis on the roundness and flatness of gravel, we figured out an irregular trend following the increase in supply of granite gravel and gneiss gravel as we traveled downstream. The result shows that the two basins have uppermost small basin condition reflecting the mountain valley environment although it may be difficult to do an equivalent comparison to other roundness researches in Korea or in Europe. This study conducted an analysis on gravels found in small scale streams unlike the previous studies trend which mostly studies large rivers. The research provides an opportunity to offer basic data for continuous comparison research on various small basins.

**Keywords :** flatness, geology, roundness, sand-gravel bar

**Conference Title :** ICGG 2015 : International Conference on Geography and Geosciences

**Conference Location :** Paris, France

**Conference Dates :** October 29-30, 2015