

Fire and sediment in an upland stream in Hong Kong

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Abstract Hill fires are common in Hong Kong. In February 2007, a hill fire burnt an area of around 1 km² on the hillslopes of Tai To Yan providing the opportunity to examine the effects of fire. Descriptive statistics in the form of the 25th, 50th and 75th percentiles show an increase in storm-period suspended sediment concentration compared to the year preceding the fire (2006). Similar results were observed for a fire in December 2004. Storm-period suspended sediment data for the years 2008–2011 show evidence of a return to pre-fire levels. Regular weekly sampling for suspended sediment for the years 2006 to 2010 indicates that fire resulted in an increase in the dry season median value in 2007 compared to that in 2006, the year preceding the burn. Weekly sampling has been undertaken during 2006 to 2010 for chlorophyll-*a* in the stream water, and the results are elaborated upon in terms of the impact of fire on water quality.

Key words fire; suspended sediment; chlorophyll-*a*; statistical comparison