Surface rupture associated with the 14 April 2016, Mj 6.5 earthquake in the Mashiki and Kashima area, Kumamoto Prefecture, Kyushu, Japan

\*Nobuhiko Sugito<sup>1</sup>, Hideaki Goto<sup>2</sup>, Yasuhiro Kumahara<sup>3</sup>, Takashi Nakata<sup>4</sup>, Kyoko Kagohara<sup>5</sup>, Hiroyuki Tsutsumi<sup>6</sup>, Nobuhisa Matsuta<sup>7</sup>, Haruka Yoshida<sup>8</sup>

1.Faculty of Humanity and Environment, Hosei University, 2.Graduate School of Letters, Hiroshima University, 3.Graduate School of Education, Hiroshima University, 4.Professor Emeritus, Hiroshima University, 5.Yamaguchi University, 6.Department of Geophysics, Graduate School of Science, Kyoto University, 7.Graduate School of Education, Okayama University, 8.Fukuoka Prefectural Yame High School

We conducted aerial observations and field surveys for the 14 April 2016, Mj 6.5 earthquake, which occurred in Kumamoto Prefecture, Kyushu, Japan, and found surface ruptures in the Mashiki and Kashima area on 15 April. Part of those ruptures were enlarged in their offset amounts and extended in their lengths during the 16 April, Mj 7.3 earthquake. In this presentation, we report distributions, geometries, and offset amounts of the surface ruptures associated with the 14 and 16 April earthquakes. [Acknowledgement] We thank research members for their cooperation during the field surveys, as well as the Asahi Shimbun Company for the helicopter flight. We also thank the Geospatial Information Authority of Japan for providing us with post-earthquake aerial photographs. This work was supported by 1) JSPS KAKENHI Grant Number 16H06298, and 2) MEXT of Japan, under its Earthquake and Volcano Hazards Observation and Research Program.

Keywords: Active fault, Tectonic geomorphology, Paleoseismology