

**THE OMANI-SWISS METEORITE SEARCH PROJECT – RECENT CAMPAIGNS AND OUTLOOK.**

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**Introduction:** A total of ~5500 meteorite samples recovered during ten field campaigns are attributable to ~690 fall events. We find that a significant part of the surface of Oman is suitable for meteorite search and that more than two thirds of all meteorites found belong to large strewn fields containing several hundreds to thousands stones. The 40-day 2009/2010 field campaign was conducted mainly along a transect from NW to SE, from the interior of Oman to the coast. The 23-day 2011 search campaign was conducted along a SW-NE axis in the central part of the Oman desert. Main aims were the continuation of systematic searches by foot in a variety of areas, test searches in unsampled areas and the conduction a geomagnetic survey in the JaH 091 strewnfield.

**Systematic searches by foot:** During the 2009/2010 and 2011 field campaigns we completed systematic foot searches on a total of 21 quadrangles of 500x500 m each (a total of 5.25 km<sup>2</sup>), covering all major areas and soil types of interior Oman suited for meteorite search. We found at least 12 different meteorites (48 stones) on this surface, corresponding to an apparent fall density of 2.3 meteorites/km<sup>2</sup>. This is significantly higher than estimated find densities from searches by car (1.0/km<sup>2</sup>) where small meteorites (few g) are likely missed.

**JaH 091 strewnfield:** In the large (51.2x7.2 km) JaH 091 strewn field [1] we performed a geomagnetic survey of the largest impact sites, after recovery of all visible fragments. Only at the largest impact site a significant unrecognized mass (several 100 kg of fragments) was discovered. Future work on the data will constrain the buried mass, allowing a determination of the total mass of the JaH 091 meteorite fall on the ground (estimated at ~3000 kg).

**Outlook:** Future field work will aim to continue the quantification of meteorite densities in different areas of the Oman desert.

**References:** [1] Russell, S. S., Folco, L., Grady, M., Zolensky, M.E., Jones, R., Righter, K., Zipfel, J. and Grossman, J.N. 2004. *Meteoritics & Planetary Science* 39:A215-A272.