

METEORITE FINDS FROM SOUTHERN TUNISIA

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From April 5th to April 11th 2008 we undertook a reconnaissance campaign in southern Tunisia to assess the potential for yielding high concentrations of meteorites.

We explored some areas of the eastern sector of southern Tunisia 120 km due south of the town Réhada, close to the Bir Zar Tunisian-Lybian frontier post. This is a rocky desert (reg) region due east of the Grand Erg Oriental, which is dominated by plateaus and mesas consisting of upper Cretaceous sedimentary rock sequences. Local logistic support was provided by Compagnie Général de Géophysic – Veritas (CGG-VERITAS).

Search traverses were conducted using four-wheel drive vehicles and on foot. Although search conditions were difficult during most of the expedition due to the fairly strong April sandstorms, nine meteorites totaling 1.3 kg were found (mass range: 5 - 630 g). Two meteorites were found in the Es-Souid area (~31°29' N – 9° 51' E), whereas the other seven were found in the Makhrouga area (~31°54' N, 10° 11' E).

Meteorites show variable degrees of terrestrial weathering, ranging from minor to severe, suggesting different resident times on Earth. In situ classification and pairing, based on magnetic susceptibility measurements with a hand-held meter (SM30) following [1, 2], revealed that the nine meteorite specimens are nine distinct meteorites likely belonging to the ordinary chondrite group. We hope to present the petrographic classification of these meteorites at the 71st Meteoritical Society annual meeting and subsequently announce their discovery in the Meteoritical Bulletin, possibly using their present field name, Bir Zar, as an official name. Specimens were split and are now maintained by the Faculté de Sciences de Tunis, Département de Géologie, and the Museo Nazionale dell'Antartide in Siena.

In conclusion, the nine meteorites found during our reconnaissance expedition document that the rocky deserts in southern Tunisia are suitable terrains for systematic searches for meteorites. We are planning a second search campaign in autumn 2008.

References: [1] Folco L. et al. 2006. *Meteoritics & Planetary Science* 41:343-353. [2] Rochette P. et al. 2003. *Meteoritics & Planetary Science* 38:251-268

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