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Splash erosion. A bibliometric Review

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Ellison (1944) developed the splash board as a system for measuring splash erosion that was both cheap and reliable. Bollinne (1975), Morgan (1978, 1981). Mutchler (1967) described another different type of splash detectors according to whether they were passive or could register data. In the study mentioned above these authors included bottles, funnels, glasses, photography, markers.
After that several devices has been made up like the splash sampler (Leguedois et al., 2005), soil tray (Van Dijk et al., 2002), splash funnel (Terry, 1989) and several rain cups (Fernandez-Raga et al., 2010; Molina and Llinares, 1996; Torri et al., 1987).
Splash erosion research has materialized in the form of a number of papers published in international journals. The
database of bibliographic references employed has been one of the most prestigious ones: theWeb of Science (ISI). The search was carried out on January 27th 2012. Among the 3108 scholarly documents included in the Science Citation Index Expanded (SCI-EXPANDED) 1899 to present , the searching engine located 439 containing the word "splash erosion*", where the asterisk acts as a wildcard for any letter or group of letters. Of these, 383 were classified as articles, 87 as proceeding papers, 5 as editorial material, 2 as notes and 1 as correction. These documents have been published in 163 different journals, although four are particularly recurrent: Earth surface processes and Landforms, Catena, Soil Science Society of America Journal and Hydrological processes, with 41, 35, 35 and 26 published documents respectively.
A geographic analysis of these articles has been carried out in an attempt to determine in what parts of the world research projects were making use of splash erosion. The results are that anglo-saxon countries, as USA, England and Australia dominate, particularly USA, with 130 articles. China and Japan are large communities of researches too, and some Central European countries as Belgium, France Germany and Netherlands.
It is interesting to analyze the evolution of research by means of splash erosion publications. Figure 6 shows the number of documents published every decade from 1961 (the first publication appears in 1967) .
Various aspects need to be commented:
• The decades show an exponential increase in the number of publications.
• The line in the figure represents the rise in the number of publications, which have been larger in the last two decades (900s and 20000s).
• The last decade included began in 2001 leads us to predict a strong boost in research in this particular field.
It is also worthwhile to consider briefly the main concepts dealt with in the documents published:
• There are only 3 publications with disdrometer + splash erosion as topic words.
• After 1991 and 2000 we find that there are several lines of measurement of two main research lines today are already defined: the study of the splash produces with rain simulation processes or splash produces with natural rain (relationship with atmospheric variables and accuracy of the measurements).
• The current decade is characterized by an increase in research using disdrometers for studying splash erosion.

Summing up, the research that is being carried out using splash erosion is evolving towards an increasing number of projects, countries, and especially, papers published in prestigious scientific journals.

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