Presented for your amusement… LO 12/09/03

"Otter's Recreational Impacts Theorem":

Where…

Q=net environmental **quality** of the subject area, as compared to a given standard (e.g., "natural conditions" defined as species composition & ecological dynamics about the same as can be reasonably postulated immediately preceding European settlement)

M=the net *effect* (not amount) of combined **management** efforts for the area (e.g., ranger patrol, education & interpretation, signage, brochures, facility design, regulations, maintenance effectiveness, screening & rationing strategies, environmental monitoring, etc.)

V=the net **visitor** *impact* on the resource (not necessarily a direct function of visitor numbers, as the behavior of different visitors and visitor populations will vary, and will therefore have a variable impact on resources)

…the environmental quality of a protected area, as a function of improved or diminished management effectiveness, and the relationship to increased or declining visitor impacts, can be expressed by the following formula:

$Q = M/V$

Carrying capacity, then, can be the measure of visitor use that a particular protected area can sustain without exceeding an identified level of Q. Thus, Q will decline if V exceeds capacity and M fails to respond proportionately.