NIXNOX project
Sites in Spain where citizens can enjoy dark starry skies

OBJECTIVES
- Locate sites with dark skies with easy access.
- Help citizens to enjoy the starry skies.
- Encourage local authorities to preserve them.
- Evolution of light pollution will be measured with repeated observations in the next years.

HOW TO
- Measuring night sky brightness in places selected by amateur astronomers associations.
- All-sky brightness maps with SQM-L.
- 12 photometers where cross-calibrated.
- Observations on clear and moonless nights.

SQM-L Photometer
- Cheap, pocket size, portable and user-friendly photometer.
- Point, press, and read night sky brightness (mag/arcsec²) on display after a while.
- Not toy reliable and calibrated.

SQM-L Spatial response
- Field of view 32 deg.

SQM-L photometric band
- Johnson B
- Johnson V

Additional information
Info for Talamanca (3680m)
- Terrassa after 24 km past of Terrassa to Talamanca (road A-120)
- Maqueta del Parque Natural "La Magranella"
- Visit information: "Mairena del Alcor"
  - www.mairena.delalcor.es
  - Location: 10 km from Terrassa (24 km), 3680 m above sea level.
  - Hotel: www.romano.com/granjas/mairena_mulanera.htm

NixNox vs. All-skies images

WHERE TO GO?
- Citizens have the right to enjoy dark and starry skies.
- Increasing light pollution reduces the number and quality of sites where we can access to this cultural heritage.
- We intend to find and characterize these privileged places to inform the citizens and to preserve them.
- Amateur astronomers have the knowledge and capability to be our task force.

Light pollution effects of Seville detected on NixNox map obtained near Benamahoma (200 km away) on a very dark area in Sierra de Grazalema natural park.

Selected sampling 0:360:30 – 20, 40, 60, 80, 90

Evolution of the amount of light detected from space (1996-2006) with radiance calibrated data from DEEP-OS satellite (units of W/m²/μm, and log scale).

 Yours sincerely,

Jaime Zamorano (UCM), Alejandro Sánchez de Miguel (UCM), Emilio Alfaro (IAA), David Martínez-Delgado (MPIA), Francisco Ocaña (UCM), José Goméz Castillo (UCM), Miguel Nieves (UCM) & Spanish amateur astronomers
jzamorano@fis.ucm.es - Dept. Astrofísica y CC. de la Atmósfera
Universidad Complutense de Madrid (Spain)