

How Many Stars can we still see?

Workshop in Preparation of the
Dark Sky Awareness Cornerstone of the
International Year of Astronomy 2009

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A night sky filled with stars, with a cityscape visible in the lower portion of the image. The stars are of various colors and sizes, creating a dense field of light. The city buildings are dark, with some lights visible. The overall scene is a blend of the natural beauty of the night sky and the man-made structures of a city.

Motto

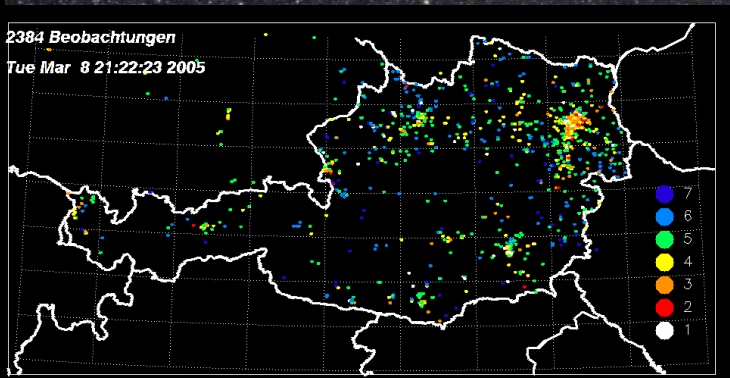
Global tools – Local action

Goals of the Workshop

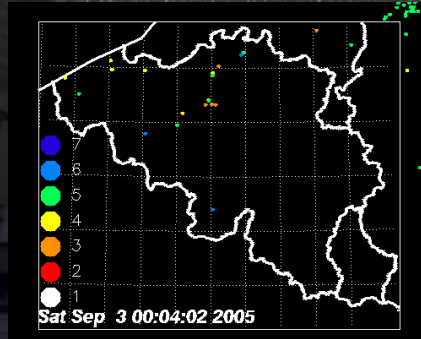
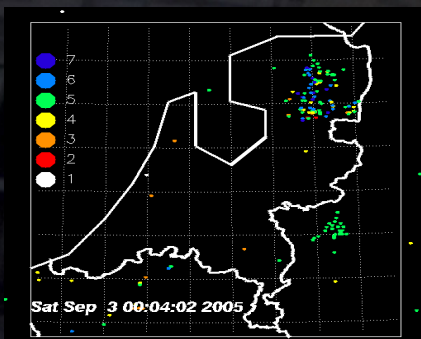
- Show and explain the tools
- Start translations
- Start luxmeter operations
- Connect the IAU cornerstone trio
 - How many stars can we still see?
 - Globe at night?
 - Great worldwide star count

How Many Stars ... in short

Austrian campaign 2001



Worldwide and multilingual 2003



1: Gürtelsterne nicht sichtbar

Orion		
Gürtelsterne	2	3
Sirius		
Grosser Hund	4	5
	6	7

Experience

- Amateurs/schools/observatories do not fill the map, we need everybody!
- Response: 1 observation / 1000 persons,
- OutREACH essential! (eg: 1/4 of austrian population),
- Network of active centers: instruction/media/ref-data,
- Simultaneous, intensive campaign of the entire net for one “dark-time”-period (2 weeks)
- Light pollution is also “fine-grained” - sub-km scale,
- Weather! --> reference net of simultaneous *measurements*

How Many Stars ... – 2009 new tools

- Multilingual Web-Site (Andy Chwatal)
- Low cost luxmeters (André Müller)
- Luxmeter data centre (Erich Janka)
- Regional campaign centres (you!)
- wiki.sternhell.at (MediaWiki) for communication and resource-pool (instructions, software, materials)

Project participation

- Regional campaign centre (node)
 - Translation
 - Luxmeter node
 - Local media and astronomy contact
- Calibration (sightings, luxmeters)
- Develop luxmeter networking
- Investigation of results

Node task I: Preparation

- online-translation of HMS-pages
- regionalise HMS-pages (contacts; media)
- identify and motivate partners in your region (astronomy clubs, planetaria, schools, observatories)
- install luxmeter and test it
- find representative places for luxmeters

Node task II: Campaigning

- motivate people to look at their home-sky
- observe and organise observing sessions
- explain problem and methods in brief at the end of every planetarium- or stargazing session
- periodic localised media releases distributed over topics and partners
- keep luxmeter running continuously and upload measurements

Remember the 2009 goals

- 1000 luxmeters continuously running worldwide to measure the state of the world's night-skies;
- 1000000 estimates of visual limiting magnitude;
- 10000000000 people aware of artificial night sky brightness.