BinoSky - best bets for stargazing with binoculars

Contents by Region of Sky

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<td>Andromeda</td>
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<td>Andromeda Galaxy</td>
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<td>M25 open cl.</td>
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<tr>
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<td>(0-30 S)</td>
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<td>Orion Nebula</td>
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<tr>
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<td>(beyond 30 S)</td>
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<td>NGC3114 open cl.</td>
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[www.uniecampus.it/universita](http://www.uniecampus.it/universita)
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About BinoSky

Purpose
Observing the sky through binoculars can be very rewarding if you know what's worth looking at, how to find it, and how to interpret what you see when you do find it. BinoSky is meant to help observers with unexceptional skills living in light-polluted areas to find objects that are enjoyable to look at. This is avowedly a greatest-hits list, not an exhaustive guide for the fanatical.

An especially troublesome issue for binocular observers is that an object can appear so different from the telescopic photos found in books that one may be unable to identify it. This problem is compounded because the published photos are hardly ever labeled as to their field of view, and the different lengths of the exposures make it impossible to compare brightnesses on a consistent basis. I have attempted to cure this problem by providing images from the Digitized Sky Survey for almost every object listed. These are all reproduced here at a consistent scale of 132 pixels per degree, which means that the magnification is about the same as your binoculars if you view the screen from 10 inches (250 mm). (If you really want to reproduce it exactly, use a distance in inches given by 7560/dpi/magnification.) I am confident that the starfields look very much like what you will actually see. Nebulous objects, on the other hand, tend to be look dimmer through binoculars than the DSS images would suggest, especially from light-polluted locations.

Choice of Objects
My focus is on deep-sky objects. For planetary observing, see my Planet Finder applet, and an applet by Gary Nugent that shows the current view of the Jovian moons from earth. For absolute beginners, the moon is of course the easiest and most gratifying target -- try a half-moon, since the shadows bring out more detail. Variable-star observing is an excellent use of binoculars, but I have not included any information here about variables, since they are amply covered on the web by the AAVSO.

There are many deep-sky objects that can be found easily with binoculars, but simply look like dots of light. These are not my cup of tea, and I have not included them. (For those who like that kind of thing, the Astronomical League has observing lists at various levels of difficulty, and will send you a pin and a certificate if you observe 50 Messier objects.) I have restricted myself to objects that clearly show some structure through binoculars when viewed under light-polluted skies. This ends up including essentially all deep-sky objects down to fourth magnitude, and none dimmer than about 5.5. I have omitted a few bright objects, such as the Jewel Box, that are better suited to higher magnifications, and also a few, e.g. the Christmas Tree Cluster, whose integrated brightness is misleadingly high because it is contributed almost entirely by a single star.

In the northern-hemisphere sky, I suspect that the main category of object I have missed is stellar associations, since they don't make it into the same catalogs. Please let me know if I have missed something beautiful along the lines of the Alpha Persei association, although I am not really interested in cataloging tons of pretty asterisms -- happening on asterisms by
chance is sometimes half the fun of binocular observing!

I would be grateful for any comments from southern-hemisphere observers on my choice of objects in the southern sky, which I have based entirely on secondhand information. Although I have aimed to cover the whole sky, I have been somewhat more conservative as to what southern objects to include, both because I cannot check them against reality with my own eyes, and because standards are just plain higher down in the More Scenic Half of the sky.

Data Table
Hartmut Frommert of SEDS has compiled a data table for the objects included in Binosky. Thanks, Hartmut!

Other Web Sites on Binocular Astronomy
The Netscape Open Directory (DMOZ) project lists several other binocular astronomy sites.

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Photos from the Digitized Sky Survey, stdatu.stsci.edu/dss/dss_form.html
Sky maps created by Your Sky, www.fourmilab.com