

Small Bonocular Discoveries

Telescope: **8x40** (Nikon 8×40)

Time: 2015/08/20 20:00-21:10UT

Location: Karviná

Weather: Good transparency, only slight haze.

We went for couple of days to visit my parents. I did not take a telescope with me, packing three kids was already quite tiresome. I took with me at least my Nikon 8×40 binoculars.

I was not expecting much. Although my parent's garden is more dark than our backyard, my experience from past was that the visibility of faint targets was significantly worse from there. It has probably something to do with the air pollution. My parents live in the heavy industrial area with black coal mines and connected steel industry. When I was a kid, I could not see even bright targets like M71 in my home made Newton 160/1000. On one occasion, I had this telescope on summer vacation in the mountains and this easy globular cluster was visible already in the telescope's finder 20×50. The quality of air improved a lot since those times, still it is not perfect.

Nevertheless, it was quite pleasant hour spent outside with binoculars. I'm not using them too often, mostly on special occasions like this. Therefore I decided to scan the sky for some brighter objects just using my memory as I had no atlas with me neither.

I spent the first half of the session near the southern horizon. I could identify the following targets: M11, M25, M24, M23, M18, M17, M22, NGC 6633, IC 4756, IC 4665. Some of them were quite beautiful - in particular the pair of open clusters NGC 6633 and IC 4756.

Then I switched to Cassiopeia–Andromeda–Perseus area. Beside the usual targets – M31, NGC752, η and χ Per, NGC663, NGC 457, M52, NGC 7789 – I was admiring beautiful α Per cluster. One of the

best sights in 8×40 binocular I know about. I also checked the open cluster LeDrew 1, I run on this cluster two years ago in Telemeter (details can be found [here](#)). It was barely perceptible in the 8×40 binocular.

Then an unexpected surprise came. I run on several suspicious milky star groups in the area north of λ Andromedae. I was aware of only one open cluster in there, NGC 7686. As I remembered, it was not exactly a spectacular one in 100mm refractor.

I went home to consult my findings with Pocket Sky Atlas in my laptop. Neither of the four noticed groups was NGC 7686. And indeed, NGC 7686 was the only plotted cluster in the area. I went out again. NGC 7686 was not visible in the binocular even when I know about its precise location. I quickly sketched the location of my findings with respect to stars (λ And, 18 And, Z And, and NGC 7789) for later identification.

Interstellarum Deep Sky Atlas is a great tool for such job. It contains many open clusters and asterisms, much more than Uranometria 2000.0. Back from vacation, I confronted my notes with this atlas. To my surprise, three out of four objects were actually known.

The most suspicious star group was open cluster **Aveni-Hunter 1** (20') located east of Z And. There are not many reports on internet about observation of this cluster. Jaakko Saloranta gives the following description through 203mm Newton: *20' cluster of 50* mags 8-14. NE side is the most obvious with all the bright stars. SW side has a scattering of 20* mags 12-14. Not very obvious - lost in the background.*

Right in the middle between the cluster and λ And, I have noticed another suspicious milky patch. It was less pronounced than Aveni-Hunter 1, still it was standing out well enough to be noticed. This group is plotted in the atlas as asterism **Teutsch-Patchick-Kronberger 1** ($23' \times 11'$). According to Jaakko Saloranta, the asterism looked through 203mm Newton as: *Fairly nice, scattered asterism of 40 stars mags 9-14. Not compressed. Not well detached from the background, but somewhat obvious due to the 9th magnitude members. Best visible at low powers. Size 25'.*

The last identified object was open cluster **Stock 12** ($20'$). It was another quite well detached milky group just north of 18 And.

Here the reports are more numerous. For example Steve Coe reports seeing the cluster already in his 11×80 finder ([here](#)).

I could not identify the last, fourth spot. Here my sketch was less precise, I noted only that it was about half way between 18 And and NGC 7789. Nothing is plotted in this position in the Deep Sky Atlas. However there were around few potential candidates. I need to check this region one more time.

And not only this region. I need to take out 8×40 binoculars more often. Different perspective provided by small binoculars brings to a live many objects hardly noticeable in bigger astronomical telescopes.

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