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A LESSON OF Y SCORPII

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Table 2 of the 78th Name-List of Variable Stars (Kazarovets et al., 2006) introduces new GCVS names for 38 variable stars with old GCVS names in wrong constellations. While working on integrating this list into the International Variable Star Index (VSX; Watson, 2006), one of us (Ch.W.) noticed that Y Sco was actually in the constellation of Scorpius and did not need the new name “V2613 Oph”. The GCVS team agrees with this correction and will continue to use the name Y Sco as the main GCVS name for the star.

The GCVS team uses thoroughly tested software to determine constellations, and thus it seems important to exactly identify the causes of the error. We could trace it down to a mistake in the widely used table of constellation boundaries (Roman, 1987). There exist two differences between the published paper (in its printed form as well as in its version available as .gif or .pdf files from the ADS) and the electronic table provided by the international data centers. Namely, line 229 of the electronic table reads:

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229 16.2667 16.3750 -19.2500 Sco
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— whereas the corresponding line of the printed paper suggests the constellation of Ophiuchus. This difference affects a small sky region (less than 1.5 square degrees) between right ascensions $16^{\text{h}}16^{\text{m}}$ and $16^{\text{h}}22^{\text{m}}.5$, declinations $-18^{\circ}15'$ and $-19^{\circ}15'$ (equinox 1875.0, the official IAU equinox for constellation boundaries). Comparison to earlier published tables (see, for example, Schlesinger & Jenkins, 1940) confirms the correctness of the electronic table. Only one GCVS variable, Y Sco, is in this region.

Then, line 267 of the electronic table reads:

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267 0.0000 1.6667 -40.0000 Sc1
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— while the printed paper has two lines with the same coordinates here, the first one referring to Sculptor and the second one, to Phoenix. Thus, the electronic table has 357 lines and the printed table, 358. Since the algorithm suggested in Roman (1987) scans the table from north to south, this difference does not affect any sky regions.

We are not aware of any errata published to Roman (1987). However, the readme file accompanying the electronic table in the international data centers contains the following remark:

“History: * 30-Dec-1999: one line (#229) was corrected by Nancy G. Roman”.

Variable stars are probably the only field of modern astronomy where constellations are still widely used. We would like to warn the variable-star community about this problem with constellation boundaries.

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