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REDISCOVERY OF THE LOST DWARF NOVA V893 Sco

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V893 Sco (=SVS 1772) was discovered by Satyvoldiev (1972a). Petrov and Satyvoldiev (1975) reported photoelectric photometry giving $V=13.0$ and $B-V=+1.0$ for this star. Satyvoldiev (1982) further published its light curve, which is reminiscent of that of a dwarf nova, characterized by occasional brightenings of a few magnitudes.

Despite several investigators' efforts in identifying V893 Sco, the variable has remained lost. For example, "A Catalog and Atlas of Cataclysmic Variables – 2nd Edition" (Downes et al. 1997) states "field unidentifiable from the chart (Satyvoldiev 1972a); possible large error in position". Rediscovery attempts by visual observations and literature searches (vsnet-chat messages) have been unsuccessful. The reference to Yao Bao-an et al. (1980) in the GCVS is wrong (Skiff, 1997); the paper cited contains no study of the star.

K. Haseda, however, while checking patrol films taken with a twin 10cm F4.0 astrograph and Kodak T-Max 400 films, noticed a variable star near the location of the designated position of V893 Sco. The discovery observations are given in Table 1. The magnitudes were determined against neighbouring GSC stars.

Table 1. Rediscovery observations of V893 Sco by Haseda

| Year | Month | Date (UT) | mag. |
|-------|----------|-----------|------|
| 1998 | January | 28.852 | 13.0 |
| | February | 1.843 | 12.5 |
| | | 26.835 | 15.2 |
| March | 1.817 | 15.2 | |
| | 5.806 | 15.2 | |

Noting that Haseda's position, $16^{\text{h}}15^{\text{m}}14^{\text{s}}.9$, $-28^{\circ}37'35''$ (J2000.0), closely coincides with a ROSAT bright source RXS 161516.2-283712, we have suspected the identity of Haseda's star with the "lost" V893 Sco. Examination on Haseda's film has confirmed the identity of

the object with the USNO A1.0 star (USNO 0600.11409621) at $16^{\text{h}}15^{\text{m}}15^{\text{s}}.15$, $-28^{\circ}37'30''.1$ (J2000.0).

Following this discovery report and the suggestion of identification with V893 Sco, E. Kazarovets examined Moscow plate archive, which Satyvoldiev (1982) used as a part of constructing his light curve, rediscovered the variable, and found a good agreement of the bright epochs of the variable with those given by Satyvoldiev (1982). Upon the authors' request, V. Satyvoldiev, S. Ibadov, and B. Irkaev compared Haseda's finding chart with Satyvoldiev's photographs of V893 Sco, and they definitely confirmed the two objects are identical. Figure 1 shows the finding chart of V893 Sco drawn from USNO A1.0.

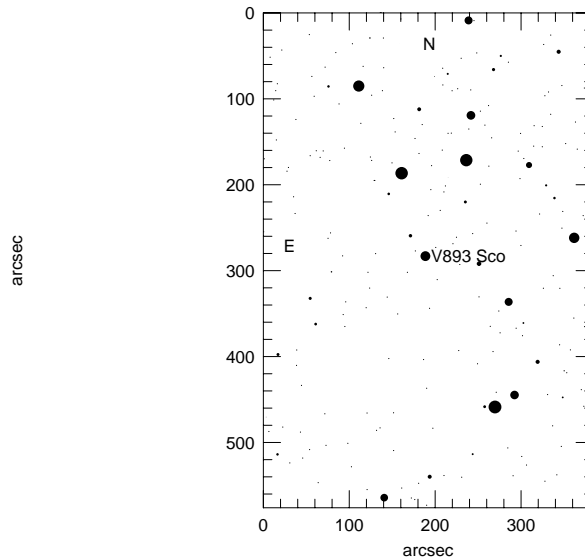


Figure 1. Finding chart of V893 Sco drawn from USNO A1.0

The seeming discordance in the original finding chart (Satyvoldiev 1972a) has been also solved. The chart given for V893 Sco = SVS 1772 (noted as V3 in Satyvoldiev 1972a) is actually identical with the chart for NSV 07698 = SVS 1794 (noted No. 18 in Satyvoldiev 1972b). The latter variable and the field can be reasonably identified on this chart, giving an identification with GSC 6794.410.

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