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IX And = NSV 372

During my work on *PICA project* (Precise Identification and Coordinate Adjustment of about 7000 variables) I have found that *IX And* is identical with *NSV 372*.

IX And = P 2495 = DO 8612(M4) = CSV 100080 = S 9500 was suspected to be variable by Nijland (1936). Variability of this star was independently rediscovered by Hoffmeister (1966) and a finding chart was also published (Hoffmeister, 1967). Additional information has appeared in 1975 (Meinunger, 1975). The star has received its final designation in 1977 (Kukarkin et al., 1977).

NSV 372 = CSV 100082 was suspected to be variable by Martynov (1938) being used as comparison **t* for *WZ And*. No final designation was accepted for this star and it was included into Catalogue of Suspected Variable stars (Kukarkin et al., 1951). Meinunger (1975) has investigated this star and found it to be constant (as we will see later he was in fact estimating comp.**p* of Martynov (1938) which is constant). Later it was also included in the New Catalogue of Suspected Variable Stars (Kholopov et al., 1982). In both catalogues this star is believed to be non-variable. According to NSV no chart was published for this star (and for nearby *NSV 371 = comp.*n* too).

While working on field variable stars around *WZ And* I have noticed that on the chart recommended for *WZ And* by GCVS (Martynov, 1938) are also marked all used comparison stars, including **t*. I was amazed because **t*, according to coordinates, should be on different place. When comparing data in Table 3 (page 13) of Martynov (giving the relative coordinates and magnitudes of all comparison stars) to the chart,

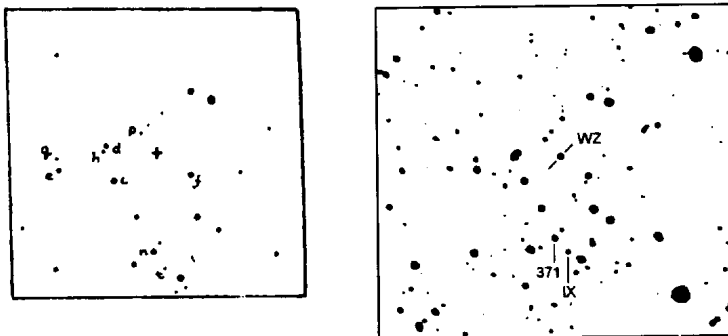


Figure 1: Left: the finding chart for *WZ And* (cross) with comparison stars used by Martynov (1938). Right: the same region adapted from Atlas Stellarum (Vehrenberg, 1970) covering about 45' x 40' with north up. The variables *WZ And*, *NSV 371* (comp.**n*) and *IX And=NSV 372* (comp.**t*) are marked on this chart.

Name	Position (B1950)				Position (J2000)				Type	Max mag	Min mag	Phot. system
	h	m	s	° ' "	h	m	s	° ' "				
NSV 372	00 59 03		+37 52.1		<i>01 01 50</i>		<i>+38 08.2</i>		-	11.7		p
IX And	00 58 50		+37 38.0		<i>01 01 37</i>		<i>+37 54.1</i>		Lb	12.9	14.2	p
GSC 2799.1599	<i>00 58 53.36</i>		<i>+37 37 39.1</i>		<i>01 01 40.58</i>		<i>+37 53 46.5</i>			10.89		1

Table 1: Comparative table of *original* data for NSV 372, GSC 2799.1599 and IX And. Data concerning NSV 372 are from NSV, data for IX And are from GCVS and data for GSC 2799.1599 are from GSC. Photometric system code 1 for GSC represents the Kodak IIA-D plate with W12 filter. Coordinates printed in italics were computed from the above stated data sources.

I have found that comp. $*p$ and $*t$ are interchanged. But which source is correct ? The table or the chart ? Fortunately from Table 2 (page 13) of Martynov (giving data on linking comp. stars to photometric standards) is evident that the chart is correct and the error is in Table 3 – the line with relative coordinates and final magnitude, in the first column stating to refer to $*p$ refers in fact to $*t$ and vice versa. When this was clear it was easy to identify *NSV 372* as *IX And*.

The reported coordinates for *IX And* were found to be somewhat off the star's real position. As this star is identical with GSC 2799.1599 the correct coordinates were easily found (see Table 1). Finding chart (see Figure 1) was adapted from Atlas Stellarum (Vehrenberg, 1970).

Following cross-identifications are valid : IX And = P 2495 = DO 8612(M4) = CSV 100080 = CSV 100082 = S 9500 = NSV 372.

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