Where to get reliable NGC/IC data?

by Wolfgang Steinicke

DSO 169 contains an article by Patrick Maloney, titled "NGC – the first half dozen". For the author the final object, NGC 6, "presents a small problem" because "it's not directly referenced in many catalogues, leading to the suspicion that it doesn't exist". He first mentions the *Revised New General Catalogue* (RNGC) by Sulentic and Tifft (1973). There NGC 6 is marked "non-existent", being a "duplicate listing of NGC 7381". But based on "modern authorities", Maloney concludes that "this is clearly wrong" for they "believe that NGC 6 is identical with NGC 20". He now refers to the *Historically Corrected New General Catalogue* (HCNGC), available on the website of the *NGC/IC Project* (www.ngcicproject.org).

This is the crucial point in Maloney's article, inducing me to write this clarification (I was further encouraged by some of my Webb Society colleagues). Due to my long term research on John Dreyer's *New General Catalogue* (NGC) and its later supplement, the *Index Catalogue* (IC), I'm deeply involved in this issue. See, for instance, my book *Observing and Cataloguing Nebulae and Star Clusters – from Herschel to Dreyer's New General Catalogue* (Cambridge University Press, 2010).

What sources should be consulted for NGC identifications? Surely not the RNGC! It is commonly known that Sulentic & Tifft's attempt to modernize the old NGC, which is based on visual observations, with the aid of the photographic *Palomar Observatory Sky Survey* (POSS) was not a success. The authors not only ignored well known corrections, but also created many new errors by their less than stellar work. At places, where no object could be found (due to poor original positional data), the RNGC-number was arbitrarily assigned to the nearest "anonymous" non-stellar object. Even some faults on the POSS plates now carry a RNGC-number!

But what about the *Historically Corrected New General Catalogue*, appearing on 19 April 2006 on the *NGC/IC Project* website (www.ngcic.org)? The author is Bob Erdmann, at that time the projects webmaster. The "official" character of the HCNGC was stressed by the note "Copyright© 2006 by The NGC/IC Project". No doubt, Erdmann's dataset profited from the great reputation of the project, based on the detective work of the core team members Harold Corwin, Steve Gottlieb, Malcolm Thomson and Wolfgang Steinicke. Though not among the detectives, Erdmann was responsible for another important task: presenting the historic and new data in a clear arrangement. All was looking fine in April 2006 – though not for me.

In contrast to my project fellows, I refrained from presenting all results on the *NGC/IC Project* website. There was no cause for any mistrust; the reason was simply that I already had created a comprehensive deep-sky website before joining the team. The main dataset is the *Revised New General and Index Catalogue* (*Revised NGC/IC*). It gives the complete astronomical data for all 13226 NGC/IC entries and has seen many updates since its first publication in 1997. Moreover, about the year 2000 I started a thorough study of the historic sources of all NGC objects, including discoverer, discovery date, instrument, observing site, publication, other observers and cross reference to former catalogues (e.g. by the Herschels). Because the information given in the original NGC is pretty poor, one has to dig deeply into archived manuscripts, observatory reports, obscure journals or letters. It took me about six years to create the result, the *Historic New General Catalogue* (*Historic NGC*). The dataset was published on 6 January 2006 on my private website (together with the latest version of my *Revised NGC/IC*). The *Historic NGC* is unique; during the compilation period, I was not aware of any other people working in this field (including the project members). Note that both the *Historic NGC* and the *Revised NGC/IC* are only available on my website.

One can imagine how I was shocked when opening the project website on 19 April 2006 to find Erdmann's *Historically Corrected New General Catalogue*. This was just four month after I'd published my *Historic NGC* – what a strange coincidence! Was this American amateur a competitor, researching in secrecy for many years? Anyway, I immediately compared the HCNGC with my dataset. The result shocked me even more: it was a perfect mix of my files, giving the same historic and astronomical information! I confidentially informed

Corwin, Gottlieb and Thomson – all three were perplexed too. They never had noticed that Erdmann was working in this field.

Shortly after publishing the *Historic NGC* in January, I found (as usual) errors in my file, mainly typos, incorrect data or mix-ups. But when checking Erdmann's product in April, I saw that all are copied! That is: not only hidden historic information (brought to light by me for the first time) but also my (personal) errors appear in the HCNGC. The conclusion is firm: Erdmann has taken the datasets from my website to do a plagiarism – not only partly (and less obviously), but completely! Did he really assume that nobody would uncover this obvious copy?

I did not take Erdmann to task at that time but set a snare. On 20 November 2006 I placed a first update of the *Historic NGC* on my website, correcting all known errors. It took only three weeks until a new HCNGC appeared, dated 14 December 2006, again with the bold copyright note. My swift check brought the expected result: all the errors were corrected! Now the time for an indictment was overdue. I wrote a long email to Bob Erdmann, compiling overwhelming evidence. I urged him to delete the HCNGC from the *NGC/IC Project* website immediately. But nothing happened. There was no confession. As a consequence I withdrew from the project and removed all my files. My private website (www.klima-luft.de/steinicke) gives this note:

"The *Historically Corrected New General Catalogue* (HCNGC), first presented in April 2006 by the former *NGC/IC Project* member Bob Erdmann on the project website, is a bold copy of my *Historic NGC* of January 2006 – including all its errors and uncorrected data. It is sad, that the necessary acknowledgment for using my catalogues is not given there! The version of HCNGC on the NGC/IC project website is incorrect and completely outdated and thus should not be used in any serious query!"

As the text implies, Erdmann indeed took a consequence: he left the project. The website temporarily closed, but later reappeared under a new URL – again with the HCNGC! All my attempts to get this suspect piece of writing removed were in vain. The present *Historic NGC/IC* (the extension to the IC was first published on 23 April 2008) cannot be compared with my dataset of 2006 and its bold copy. Reliable historic and modern NGC/IC data can be found on my website. It became the standard source for many users.

Let's finally return to NGC 6. From the historic records it is evident that the object is identical with NGC 20. The 13 mag galaxy in Andromeda was discovered by R. J. Mitchell on 18 September 1857 at Birr Castle, using the 72-inch reflector. Dreyer catalogued Mitchell's find as NGC 20. The NGC 6 entry is due to Lewis Swift. This observation was made with a 16-inch refractor on 20 September 1885. In my first *Historic NGC* I had incorrectly credited NGC 20 to William Parsons (Lord Rosse). The HCNGC "correctly" gives NGC 6 (Swift 1885) = NGC 20 (Parsons 1857), the reader now knows why!