

Þessi skýrsla um stöðu kennsla  
mála í stjarnfræðingum á Íslandi  
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## ICELAND

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General Background. From the Sagas and other old Icelandic manuscripts it is known that Icelanders have been interested in astronomy in one form or another since the settlement of the country in the ninth century. After the Reformation, most astronomical knowledge, e.g. in connection with timekeeping and the determination of latitude and longitude, was obtained at the University of Copenhagen in Denmark and this continued while Iceland was under Danish rule well into the twentieth century. The Danish Academy of Science even established a small observatory in Iceland around 1780. The observatory was poorly equipped and was closed down in 1805. Since then there has been no astronomical observatory on the island devoted to scientific research. One reason for this is unfavorable weather conditions.

At all times there have been people in Iceland who were well educated in astronomy. Astronomy and astrophysics at the professional level are, however, very recent additions to the Icelandic scientific scene and it is only in the last fifteen or twenty years that the number of professionals in these fields has started to increase. As a result Iceland did not become a member of the IAU until 1988. This recent and very positive development has unfortunately come later than one would have expected in view of the considerable public interest in all things astronomical. It can be argued that the main reason for this is that the Icelandic government has decided to direct money earmarked for science and technology into applied fields other than astronomy and astrophysics. As an example, in 1992 the Icelandic Astronomical Society (founded in 1988) proposed that Iceland should become a member of the Nordic Optical Telescope Association and share the cost of that Nordic collaboration at the 1 to 2% level (approx. US\$ 15000 per year). Although the proposal was fully supported by the Council of Science, it was turned down by the government at that time as being too expensive. A renewed proposal has now been under consideration by the recently established Research Council for more than a year. So far there are no indications that this new Council is prepared to support the further development of astronomy in Iceland.

Elementary Schools. Although the quality of elementary education in Iceland is generally quite good, this is not true as far as some science subjects are concerned. In particular, physics and astronomy do not fare as well as one might expect in a highly developed European country. The main problem seems to be an unnecessarily limited education of teachers. At the University College of Education, where the great majority of teachers receive their training, physics (which includes astronomy) is not a required subject and only about 5% of the future teachers choose it as an elective course. As a result the amount of physics and astronomy that is offered in many elementary schools is very limited. In most cases the teaching of astronomy involves only a few simple topics related to the earth and the solar system. Of course there do exist schools that are fortunate enough to have enthusiastic and well educated teachers who teach their students much more astronomy than this.

Secondary Schools. In most secondary schools the teaching of astronomy is limited to students who specialize in the sciences. Since several schools do not even have a science line this means in practice that much less than half of all secondary school students are given the opportunity of learning any astronomy at all. In schools where astronomy is taught it is in many cases only a small part of the physics curriculum. A few schools, however, offer astronomy as a separate subject for one semester or even a whole school year. In general the quality of the teaching is quite good since most of the teachers involved have a university education in physics, astronomy or mathematics. In recent years there have also been a few summer schools in astronomy for interested secondary school teachers but those are not held on a regular basis.

University Education. Although it is not possible to obtain a university degree in astronomy in Iceland, the University of Iceland has offered courses in the field since 1976. A permanent teaching position in astrophysics was established in 1991, and in 1995 a small observatory was erected on top of one of the university buildings. It houses an old 8 inch Celestron reflector which will hopefully be replaced by a more advanced telescope in the near future.

The Physics Department now offers an introductory course in astronomy for students majoring in geology, geography and biology as well as more advanced courses in astrophysics for physics majors. These courses are very popular, but because of rather inflexible inter-departmental barriers students majoring in fields other than those already mentioned are not allowed to take astronomy for credit except in special cases.

Public Education. As in most other countries, public interest in astronomy is very high in Iceland and public lectures by professional astronomers and astrophysicists, both Icelandic and foreign, are very popular. On the other hand there is no planetarium in Iceland and none are on the planning board. Iceland's only amateur society, the Amateur Astronomical Society of Seltjarnarnes (founded in 1976), organizes lectures and other events for the general public, but those are on a rather irregular basis. The society has its own observatory with a 14 inch Celestron reflector used by members and guests, among which are students from both elementary and secondary schools as well as the University.

An increasing interest in astrology, "New Age science", UFOs and other superstitions is of growing concern to Icelandic scientists. Many newspaper reporters and columnists as well as influential radio and television personalities seem at times to be much more interested in such irrational nonsense than in informing the public about science. In addition, even municipal authorities have been known to support pseudoscientific activities by grants. Although this is probably an international rather than a specifically Icelandic situation, many scientists suspect that in this country, at least, part of the blame should be put on an educational system that underemphasizes the importance of science and rational thinking. At present there are, unfortunately, no indications that things are going to improve in the near future.