

or possibly a quiescent comet.

It is possible, in fact, that if the object is a comet, earthbound observers may never know it. A defunct comet—a “dead” comet nucleus — would already have given off most or all of the volatile material that would otherwise produce the familiar hazy appearance of the coma, to say nothing of a tail. In addition, however, Object Kowal always stays far from the sun by known cometary standards, so that it may never get warm enough to give off even an existing supply of volatiles. “We’ve never seen a comet beyond 11 AU before,” says Marsden, adding that most have been observed at less than 6 or 7. Object Kowal’s perihelion of 8.51 AU could mean that it will get warm enough to reveal a cometary nature when it comes around in the mid-1990s, but it may not. Frustratingly, the lack of visual and spectroscopic evidence will not prove that the object is *not* a comet.

Ironically, the object was actually singled out on the 1941 plate — and even marked with an arrow—in a study done in the early 1950s, about a quarter-century before Kowal’s “discovery.” It had been spotted by Ann B. Hearn (now married to University of Maryland astronomer Thomas Matthews), working with the late Harlow Shapley on a search for distant galaxies. It was Kowal, however, who found that the object was circling the sun, thus earning recognition as its discoverer and the honor of giving it a name. Although the object’s nature is still in question, Kowal has in fact suggested a name: Chiron, one of the centaurs of Greek mythology. If other, atypically distant minor planets are found, he says, perhaps they might be thus categorized as “Centaurian planets.” □

## IWC supports larger Pacific whale takes

Meeting in Tokyo this week in a special session called by the Japanese and Russian delegations, the International Whaling Commission (IWC) approved an increased quota on commercial hunting of North Pacific sperm whales. In June the IWC approved a take of fewer than 800 and a total ban on the take of any bowhead whales. The latter caused severe repercussions amidst coastal Eskimos whose subsistence culture depends on eating bowheads (SN: 9/17/77 p. 185). At an IWC scientific committee meeting in Canberra, Australia, a week prior to this Tokyo meeting, new data used in mathematical models of sperm whale population dynamics supported an increased North Pacific take of 6,000; at the same time, the committee again endorsed a total bowhead ban. But in full committee the IWC decided to rescind the total bowhead ban for political (and cultural) reasons and to support an increased sperm whale take of 6,000. □

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## King Philip’s tomb — A golden find



Wide World Photos

About 17 feet below the Greek farming village of Vergina lies what a University of Salonika archaeologist believes, “without reservation,” is the 2,300-year-old tomb of King Philip II of Macedon, father of Alexander the Great. Chemical analyses have dated the tomb at 350 to 320 B.C. But Manolis Andronikos, who found the tomb, says the deciding factor in identification of the tomb was his discovery of five small ivory heads on the tomb’s floor. The heads, he believes, portray Philip, his parents, his first wife, Olympias, and their son Alexander. A solid gold casket contained Philip’s bones, he says.

## Hyperactives as teens: Problems linger

For years, the “they’ll grow out of it” philosophy has been applied to both hyperactive and learning disabled children. But research results now indicate that while many such youngsters do improve in later life, their academic and social progress often appears to be slower than hoped for.

That was among the conclusions of a followup study of sixty-two 14-year-old boys who had been diagnosed as learning disabled (LD) in grade school. The youngsters — classified as either hyperactive, hypoactive or normoactive (normally active) — were compared with a control group of 31 non-learning disabled children who had normal levels of activity. The LD youngsters, although of average or better than average intellectual level, had either failed a grade or were near failure and were about two years behind controls in oral reading achievement.

In the extensive followup, researchers from the University of Arkansas’s Behavioral Laboratory and Child Study Center tested the children on a variety of academic and social adjustment measures. In addition, the youngsters were rated by their teachers, parents and a team psychiatrist.

The results at age 14, reported in the *OCTOBER AMERICAN JOURNAL OF ORTHOPSYCHIATRY*, include:

- Only two of the 23 hyperactive boys presented no problems for either the home, school or community. Ten remained academically below normal and exhibited

social deviancy as well. Three who were academically adequate continued to have behavioral problems. And eight, although still academically handicapped, had become generally cooperative at home and at school.

- Normoactive LD youngsters presented principally academic problems — 72 percent continued to have basic problems in two or three basic skills.

- Among hypoactives, 71 percent had marked deficiencies in two or more academic areas, and only one in 14 was achieving normally in all areas.

- Sixty-one percent of the control group students remained adequate to superior in all three areas tested by the Wide Range Achievement Test.

The researchers were particularly discouraged by the outcomes of the hyperactive boys, especially since earlier studies in the field (in the late 1960s) indicated that children might outgrow hyperactivity between the ages of 10 and 14. But this proved untrue in the Arkansas study, even though most of the LD youngsters had received the benefit of special learning programs and medication between their original diagnosis and the followup study.

“We hoped these various programs would have made an impact, but that didn’t happen,” team researcher Peggy T. Ackerman told *SCIENCE NEWS*. “If anything, the children treated more intensively [with tutoring, resource rooms, medication, etc.] turned out worse off than all the rest. ... But of course they were the ones

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