The OEIS® reaches 200,000 sequences.

The On-Line Encyclopedia of Integer Sequences® (or OEIS®) isn’t interested in DNA sequences, they are too messy. Only well-defined number sequences, like the Fibonacci numbers, the pentagonal numbers, or the number of pieces you can cut a bagel into with n knife cuts are acceptable. The OEIS was begun by Neil Sloane, a mathematician at AT&T Labs, 47 years ago when he was a graduate student. In 2010 he was still running it, still essentially single-handedly, but with 50 new sequences coming in every day it had become too much for one person to manage.

After a difficult two-year transition period, the OEIS now has a new life—it is owned by a non-profit foundation (of which Sloane is the president), it has its own web site, oeis.org, and it operates as a wiki. It was launched on November 11, 2010, at which time it contained 180,000 sequences.

Last night, December 1, 2011, after a year of successful operation, a milestone was reached: the 200,000-th sequence was added. What is it? Sequence A201463 is a list of 25 numbers, 6, 10, 12, 14, 15, 18, ..., 117, 144, with some special properties, one of which is that the sum of their reciprocals is 1. This is a new development in the four-thousand-year-old Egyptian Fraction problem. It is not exactly new, though—Sloane found it in a 2006 volume of the journal Discrete Mathematics. Why wasn’t it in the OEIS already? Probably the author of the article didn’t know of the existence of the OEIS. But many other people do: the OEIS Foundation web site has a list of over 2000 articles, books and web pages that reference the OEIS, and the following comment is typical of many that have been received: “I consider OEIS one of the remarkable mathematical resources on the web, thanks to your enormous efforts in maintaining it.”

The OEIS hasn’t yet decided how to celebrate this event. Back in 2004 when they reached 100,000 sequences, they threw an eParty—see oeis.org/100k.html.

What’s next? One goal is to spread the word that the OEIS exists, and that anyone in the world coming across an interesting sequence of numbers (although not a DNA sequence) should submit it. And the OEIS Foundation has been in existence for less than two years; it has charitable status in the U.S. and will continue to need to raise funds to secure its future.

For further information: Neil Sloane (Pres., OEIS Foundation), njas@research.att.com, (973) 360 8415; David Applegate (Vice-President), david@research.att.com, (973) 360 7127. The OEIS web site: oeis.org, the OEIS Foundation web site: oeisf.org.

---