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(bjarkig12@ru.is) and **Henning Ulfarsson** (bjarkig12@ru.is). *Collatz meets Fibonacci.*

Neither Collatz nor Fibonacci really needs an introduction. Fibonacci's famous sequence is:  $F_1 = F_2 = 1$  and  $F_n = F_{n-1} + F_{n-2}$  for  $n > 2$ . The Collatz conjecture is that when the function

$$f(n) = \begin{cases} n/2 & \text{if } n \equiv 0 \pmod{2} \\ 3n + 1 & \text{if } n \equiv 1 \pmod{2} \end{cases}$$

is applied iteratively to any initial value in  $\mathbb{N}$ , the values eventually reach a power of two. By considering the patterns arising in iterates of  $f$  just prior to the occurrence of a power of 2 we find a close encounter between Collatz and Fibonacci – but one which is followed by an interesting separation. (Received August 25, 2014)