Corrections and clarifications for M. Birkner, J. Blath, M. Capaldo, A. Etheridge, M. Möhle, J. Schweinsberg, A. Wakolbinger, Alpha-stable branching and beta-coalescents, Electron. J. Probab. 10 (2005), no. 9, 303–325

As of 10th April 2015

1. p. 308, l. 12 : σ^2 is non-negative, γ is an arbitrary real number

2. p. 308, below (1.13) : Note that (1.13) is valid (for example) for $f \in C_c^2([0,\infty))$, where $C_c^2([0,\infty))$ denotes the set of two times continuously differentiable functions with compact support. $C_c^2([0,\infty))$ is a core for Z on the Banach space $C_0([0,\infty))$ (continuous functions that vanish at infinity, equipped with the sup-norm).

3. p. 308, (1.14) should read $\Psi(u) = -\gamma u + \frac{\sigma^2}{2}u^2 + \cdots$ (otherwise, the parametrisation does not fit to (1.13) and to the requirement $E[e^{-\lambda Y_t} \mid Y_0 = s] = e^{-\lambda s + t\Psi(\lambda)}$). Note that this fits to the re-parametrisation $\Psi(u) = -mu + cu^\alpha$ (for $\alpha \in (1,2)$ with $c > 0$ and $m = -\Psi'(0) \in \mathbb{R}$) discussed at the top of p. 310.

4. p. 308, l. -11 : the process Z may explode ...

5. (1.16) on p. 309 should read

$$\mathbb{E}\left[\int R_{T^{-1}(t)}(da_1)\dots R_{T^{-1}(t)}(da_p) f(a_1,\dots,a_p)\right]$$
$$= \mathbb{E}\left[\int db_1 \dots db_{|\Pi_t|} f_{\Pi_t}(b_1,\dots,b_{|\Pi_t|})\right],$$

   where $(\Pi_t)_{t\geq 0}$ is a Beta$(2-\alpha,\alpha)$-coalescent started from $\{\{1\},\dots,\{p\}\}$. This follows in fact from Thm. 1.1.

   Formula (1.16) in the published paper was obtained (somewhat carelessly) from this by implicitly replacing the deterministic time t by the random time $T(t)$ (defined in Thm. 1.1) on both sides. (1.16) as it stands requires a careful interpretation of the right-hand side: It must be understood that $(\Pi_t)_t$ and $T(t)$ appearing in it are not independent but connected (in a complicated fashion) through the time-change construction described in Thm. 1.1.

We are grateful to Olivier Hénard for pointing out this inaccuracy.