

Re: Bipedalism in different substrates

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From: Bob Keeter (rkeeter_at_earthlink.net)

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"Pauline M Ross" <pmross@ross-software.co.uk> wrote in message
news:458vf0dgbuobpi1ue3g28hquj7l46bun3f@4ax.com...

> *On Thu, 22 Jul 2004 00:21:08 GMT, "Bob Keeter" <rkeeter@earthlink.net>*

> *wrote:*

>

>>> *[Pauline]They increase the overall size of the foot, which enables slow*

>>> *fish-style motion (like fins). They don't help at all with frog-leg*

>>> *kicks or crawl-style power kicks.*

>>

>>*Have you ever been scuba diving or snorkeling? Have you ever tried to do*

a

>>*"crawl-style" power kick with swim fins on? Honestly now!*

>

> *Well, exactly. Frog-leg and power kicks are two forms of human*

> *swimming motion which are not helped at all by flippers, in fact*

> *flippers would be counter-productive. Neither would webbed feet be any*

> *use.*

Pauline, yes or no, have you ever been scuba diving or snorkeling with swim
fins on your feet?

>>> *[Pauline]Chimps, bonobos and gorillas all wade bipedally in the wild,
that's*

>>> *well documented. I'm sure Algis can give you the references if you*

>>> *want. In shallow water, they also have the option of wading*

>>> *quadrupedally.*

>>

>>*As with the swim fins, you have made a pretty definitive statement in
that*

>>*first sentence. So. . . I will just ask that you show me the evidence
for*

>>*it or state that its an opinion.*

>

> *I found the references in Algis's published paper on the subject;*

> *here's what he said:*

>

> *"Galdikas, Ellis and Sommer & Amman have all either commented about*

> orang-utans (*Pongo*) wading or have published photographs showing such
> behaviours and Ashley Leiman of the Orangutan foundation made this
> statement "Since 1986 I have visited Tanjung Puting National Park in
> Indonesia, on numerous occasions. During this time I have frequently
> seen orangutans wading bipedally in the swamp and river."
> Gorillas have also not traditionally been linked with water but Ellis
> (1990:p57) provides anecdotal evidence in captive gorillas that they
> can swim. Also Doran & McNeilage (1998:p121) and Parnell (2001:p294),
> studying Western Lowland Gorillas in the field, provide evidence of
> splash displays and feeding in the marshy swamps of Mbeli Bai. Parnell
> (2000, personal communication) observed several bouts of bipedal
> wading in these animals and wrote.[*].
> Even chimpanzees, which have long been considered the most hydrophobic
> of all the apes, turn out to be surprisingly fearless in water when
> they are sufficiently driven by hunger to get their feet wet. Angus
> (1971:p51) and Nishida's (1980) both provide anecdotal evidence of
> chimpanzee locomotion in water. In addition to this there has recently
> emerged some significant photographic footage of chimpanzees wading
> bipedally in fairly deep (chest high) water from a research student,
> Jess Tombs, working at a chimpanzee sanctuary in the Conkouati reserve
> lagoon (See Tutin et al. 2001).
> Finally, in bonobos too (the least studied of the great apes) there
> seems to be growing evidence that they are less fearful of water and
> show a greater tendency to wade than their chimpanzee cousins.
> Uehara (1976), de Waal (1996:p185), de Waal & Lanting (1999:p79-82)
> all document anecdotal evidence of bonobos moving in water in the
> wild."
>
> [*] there seems to be a quote missing here.
>
> You can look up the details of the primary references cited on his
> website www.riverapes.com

8-) What if I dont bother.

> > If you can infer environment by an indirect
> > characteristic (such as hairlessness), why can I not infer diet from a
> > direct characteristic like isotope concentrations? 8-) If my inference
is
> > faulty, where does that leave yours? 8-)
>
> Of course you can infer diet from isotopic analyses. What the research
> tells us is that hominids had (on average) a sizeable C4 component in
> their diet (from 0 to 60%, mean 40%). The C4 component must have come
> from grasses and sedges, or animals that fed on grasses and sedges, or
> both. It is perfectly reasonable from that to infer that they ate some
> meat, especially once you get past 2.5 Mya when the stone tools
> confirm that.

"Some" meat? You mean about as much meat as a hyena? 8-) To
get close to the same isotopic balance, where your only digestable source

for C4 is termites and meat, you have to keep that percentage up somehow.

- > *What you *can't* do is infer that they ate mostly or entirely meat.*
- > *Just because they show the same C3/C4 ratio as hyenas does *not* mean*
- > *that they had the same diet as hyenas. The C3 component comes from*
- > *fruit, nuts and leaves, or animals that fed on these, or both. In the*
- > *case of hyenas, it is reasonable to presume that they got their C3*
- > *component from feeding on browsers and frugivores. In the case of*
- > *hominids, it is reasonable that the C3 component came mostly from*
- > *fruit, nuts and leaves, as it does in our closest cousins and most*
- > *other primates and (probably) the LCA.*

No problem with the C3 constituent coming from fruits and such, with the occasional browser or frugivore thrown in for flavor. . . . after all a colubus

monkey IS a good C3 source you know! 8-) Its the C4 concentration that causes you all the problems. There just are not any good DIGESTABLE C4 sources in the forest. Meat on the other hand, if you can get it into your belly, digests just fine! Meat rich in C4 really is only found out in the open.

- >
- >>> *[Bob]8-) Did you read the article on the 2my old blood samples from the*
- >>> *Sterkfontein stone tool? ;-*
- >>>
- >>> *[Pauline] Yes, that will be terrific if it holds up. But we already knew that*
- >>> *stone tools (at 2.5 Mya) were used to butcher carcasses of*
- >>> *medium-sized animals, so that in itself isn't news.*
- >>
- >> *Oh, but I think that the idea of scraping wood, bone and horn might open up*
- >> *some very large cans of Lumbricus terrestris.*
- >
- > *Well, I've always assumed that once they had stone cutting tools, they*
- > *were going to use them to cut (or shape) all sorts of things,*
- > *including wood and bone. It will be nice to get confirmation of that,*
- > *but I don't think it produces any radically new ideas.*

Ah but it does, it DOES! You see, you could make all sorts of arguments that bone and horn scrapings could be the effect of butchering an occasional scavanged carcass. There is no reason that I can imagine for the little guys to have been scraping wood unless it was to change the shape of that wood. That starts to feel a LOT like manufactured wood tools! Indirect but Id say pretty compelling evidence that these little fellows didnt run around defenseless with only their little hand axes, scrapers and a brave show! 8-).

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Regards
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