Supplement 2, Phenotypes

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GMR10B03	Starting 0:15 all holding labellae spread wide (no proboscis extension yet) then starting raising and lowering wings, then by 0:30 many starting to extend proboscis and kiss surface repeatedly. This is often more of a body movement than actual proboscis extension, although that happens frequently too. 2:15: shaky and uncoordinated, full proboscis extension is less frequent but labellae are all still held open. Many flies hunched over. 4:30: many holding middle legs off ground. There are still several flies doing this fictive "feeding" at 5:00.
GMR10B03	By 0:18 all flies raising and lowering wings (flapping, but not at the speed for flight), all have labellae spread wide. Many flies "kissing" the surface. Many have proboscis constitutively partly extended, but also doing full repeated proboscis extension in something that really resembles feeding: flies not just extending proboscis, but also bending body and head over to touch proboscis to surface. By 2:30 shaky and very uncoordinated, body very hunched over. All flies doing constitutive extension of one segment of proboscis but no longer see much big proboscis extension. All flies holding middle legs off ground.
GMR13F07	Deformed wings. Starting 0:25 very stable constitutive full proboscis extension in many flies. Proboscis looks thick, like it does when inflated during wing expansion. See some flies with very inflated abdomens, as if swallowed air.
GMR13F07	Unexpanded wings. Starting around 0:50, many flies stuck out probos & left it out constitutively, not moving it.
GMR15A01	All males, no females: excess terminalia cleaning. Extruding genitals to clean. By 3:30, noticing some repeated med/full proboscis extension in females only. Some males: courting. By 5:00, see courtship towards both females and males, and some male chaining (pursuing other males). Before that, all flies were doing less locomotion than usual.
GMR15A01	Starting 0:45 several males extending & grooming terminalia. Then several started courting: orienting, pursuing, doing a bit of wing song. 1:50: some females extruding eggs. 2:30: saw repeated med proboscis extension in just a couple of females. 4:00: most males courting, plenty of licking, some copulation attempts. Males are also still sometimes grooming terminalia. At 6:00 one male doing licking & copulation attempt with another male.
GMR15C01	By 0:20, almost all standing still. By 0:50, abdomens vibrating. By 1:00, wings up in a few; more over time. By 3:00, all defecating. Two females laying eggs and defecating at the same time.
GMR15C05	Starting 1:20 repeated med (later full) proboscis extension in eventually most flies, and proboscis extension assoc with (non-excess?) grooming by hind legs in a few. After 4:00 slightly excess head grooming, occasional nodding of head in "yes" motion.
GMR15C05	Starting 0:20 repeated med proboscis extension in a few. Soon full or med repeated proboscis extension in most or all flies. Some occasionally nodding head in "yes" motion. Slight excess of head grooming.
GMR18B07	Several females laid eggs around 1:00. By 2:00, several flies (and many more over time) doing constitutive upward proboscis extension. No vibration.
GMR18B07	By 0:25 constitutive partial extension of the proboscis in many. 1:00: Many have labellae spread. All females extruding eggs. 2:00 several holding wings up or down. Proboscis extension is mostly stably constitutive, but occasionally extended further, in a repeated fashion. Occasional proboscis grooming.

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GMR19G09	By 0:30 all flies fallen over, paralyzed, wings up, many with proboscis stuck out constitutively, not moving. Some eggs extruded. Eventually all have proboscis out - in most, looks inflated.
GMR19G09	Many soon holding wings up. Uncoordinated; soon so shaky that almost looks like seizure. Abdomens curled. Some females extruding eggs. By 2:00 some fallen over, with constitutive partial proboscis extension (by 3:00, all, and proboscis extension now mostly full).
GMR21A03	Reduced locomotion. By 0:45 all doing small proboscis twitching. By 3:00 some raising wings. By 4:00 proboscis is out enough in a few to call it small constitutive extension (with pulsing still on top of that).
GMR21A03	Starting 0:30 reduced locomotion, excess overall grooming. By 1:20 all flies: proboscis twitching steadily, but not extending. By 2:00 no more grooming, standing still, except for proboscis twitching rapidly. Some wings up. After a while most flies doing constitutive extension of the first segment of proboscis, with pumping and some twitching.
GMR21D07	By 1:45 many shaking head in "no" motion. By 2:45 excess head & proboscis grooming. 2 flies spitting on surface. 1 spreading labellae. Proboscis extension for proboscis grooming bigger & more frequent over time.
GMR21D07	Starting 2:00 a few cases of proboscis grooming, a few more over time. By 3:00 most flies shaking heads "no". Some repeated proboscis extension as well. Some head grooming. Altogether, appears as if their head is bothering them.
GMR23F03	Abdomens contracting. Excess wing flicking. Males extending & grooming terminalia, some females extruding eggs. Starting after 1:00 repeated full proboscis extension in several flies, a few spitting on surface. By 4:00 wings up in all. Narrow stance, abnormal walking.
GMR23F03	Excess wing flicking. Female abdomens rounded, males elongated. Males doing excess terminalia extension & grooming. Starting 0:45 a few sporadic cases of repeated proboscis extension, either independent or associated with the male grooming. A few eggs laid. A couple of cases of med constitutive proboscis extension. By 4:00 no more wing flicking, but wings up in some. Many females extruding eggs. Reduced locomotion.
GMR24A06	Flies moving too fast to tell at first but by 0:40 could see flies (male & female) walking around with proboscis all the way out constitutively (not directed at surface). Retracted occasionally. Labellae not spread. Not all flies doing it. By 3:00, wings held up in most. Btwn 4:00 & 5:00, all ended up lying on side with proboscis all the way out.
GMR24A06	By 0:30 uncoordinated, wings up, most doing huge constitutive proboscis extension, sometimes pulsing or repeating a bit. By 2:00 most fallen over, abdomens curled. Some extruding eggs.
GMR26A02	Starting 1:00 excess antennal grooming, in eventually all flies. By 1:40 several flies also doing proboscis grooming with full extension. Reduced locomotion: eventually not walking around at all, just grooming.
GMR26A02	Reduced locomotion. Every single fly doing constant antennal grooming, although several also groom proboscis occasionally.

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GMR26E01	Starting 0:30 abdomens curling. Shaky. Female aggression? Only toward other females, hardly ever males. Females seem to be tussling a fair amount, but they're all so shaky that it's hard to tell if it's fighting or just tussling to get away from each other following accidental contact. Also see maybe some female chaining; 3 forming a triangle on a few occasions. See several instances of females standing on hind legs apparently boxing each other; many more pairs like this by 8:00. Now undoubtedly aggression. Males just trying to get out of the way.
GMR27G01	Starting before 0:20 med/full constitutive proboscis extension in most, soon all.
GMR27G01	Reduced locomotion. Starting before 0:17 med constitutive proboscis extension in soon most, with repeated full proboscis extension on top of that in several. A few spitting on surface occasionally.
GMR41G04	Slightly excess overall grooming, including slightly excess head grooming? At 2:00 1 female doing repeated med proboscis extension. More head grooming than usual. Some cases of proboscis grooming (in the course of head grooming), but no extension.
GMR41G04	Starting before 0:20 wings up in all (some flapping), stable med or full constitutive proboscis extension in many, soon all. Somewhat upward, but more towards surface over time. A few holding labellae open. Excess flight/jumping. Male abdomens curled. Front legs uncoordinated.