

# Doxological Biodiversity in Job, Chapter 39:

## God’s Wisdom and Providence as the Caring Creator, Exhibited in the Creation Ecology of Wildlife Pairs

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### Abstract

The Old Testament book of Job contains a “nature sermon,” directly delivered by God Himself, unto Job, in answer to Job’s questions about how Job’s peaceful life was suddenly interrupted by agonizing afflictions and disasters. God’s answers provide a creationist theology of God’s goodness, might, wisdom, and providence. In this “nature sermon,” reported in Job 38–41, God highlights His control over the physical cosmos, then He describes His control over the world of living creatures. Beginning in Job 38:39, God emphasizes how He has carefully planned for and carefully fitted resources for critical needs of His animal creatures, including reproductive success, dietary necessities, resources to facilitate terrestrial and aerial mobility, etc. Accordingly, (a) Job should recognize God’s kind providence as it is wonderfully applied to God’s lesser creatures; (b) Job should recognize that his own humanity is more valuable to God than the lives of wild animals; and (c) Job should patiently depend upon God to work out good outcomes for his life, here and hereafter. To teach these truths (which are later summarized in 1 Peter 4:19) unto Job, God provides these paired illustrations of various animal’s needs and activities: (1) lion and raven; (2) wild mountain goat and cervid doe; (3) wild donkey and rhinoceros; (4) ostrich and horse; (5) hawk and eagle; (6) Behemoth and Leviathan.

**Key Words:** Providence, lion, raven, wild mountain goat, cervid, wild donkey, rhinoceros, ostrich, horse, hawk, eagle

### Introduction

The Book of Job has a literary structure that does not fit an “either-or” categorization of prose-versus-poetry, because

Job’s book begins with a historical prose prologue (Chapters 1 & 2), and concludes with a historical narrative epilogue (42:7–17)—yet the interven-

ing text (3:1–42:6) primarily provides powerful and poignant discourses (both monologues and dialogues) that are presented in the parallelism-framed format of Hebrew poetry (Johnson, 2011).

Job 39 is part of the lengthy serial-questions-based “nature sermon” (Job, Chapters 38–41) that God gave unto Job, with each creation exhibit (including all

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animal “creature features”) proving God’s infinite wisdom and providence, as the Creator of the heavens, the Earth, animal life (especially wildlife), and mankind—including Job himself (Johnson, 2014).

Specifically, God’s nature sermon (Job 38–41) begins with God’s rhetorical questions about the heavens and Earth’s geophysical environment (38:1–38), follows with God’s questions about selected land-based beasts of the earth (38:39–39:30), and ends with two monstrous beasts of water-dominated habitats—Behemoth (chapter 40, inhabiting freshwater wetland habitats) and Leviathan (chapter 41, inhabiting “deep” saltwater habitats).

Thus, within the overall context (of Job 38–41), the flow (of Chapter 39’s wildlife lessons) actually begins at Job 38:39, which begins a theme-connected series of “creature feature” pairs, starting with the hunger of lions and ravens. It would be more thematically convenient if chapters 38 and 39 broke at Job 38:38 / 38:39—because the series of animal-based inquiries begins with the question of how lions get food (at 38:39–40), which is paired to the question of how ravens get food (Job 38:41).

Job 38–41 is structured as Hebrew poetry, so parallelism is the key to exegeting Job 38–41. The first “creature feature” animal pair is the “lion” (38:39–40) and “raven” (38:41), whose hunger God satisfies. That pair is followed by four more land-based animal pairs (chapter 39), concluding with a wet-habitat monster pair, Behemoth (chapter 40), and Leviathan (chapter 41).

Thus, Chapter 39 continues this series of animal pairs with child-bearing “wild goat of the rock” and the child-bearing “hind” (39:1–4); followed by the free-ranging, untamed “wild ass” (39:5–8) and free-ranging, untamed “unicorn” (39:9–12), which is the archaic name for rhinoceros (Johnson 2018a); followed by the fearless, reckless “ostrich” (39:13–18) and fearless, reckless “horse” (introduced in verse 18, discussed in

39:19–25); followed by the wind-borne, soaring “hawk” (39:26) and wind-borne, soaring “eagle” (39:27–30).

[U]sing a “nature sermon” ... God pointed to how He takes care of earthly creatures through His providential timing. Lion and raven babies hunger first, then they eat. Wild goats and deer have designed timeframes for gestation, then birth occurs. Hawks and eagles fly with purposeful timing, synching their flights to thermal air currents ... Sequential timing is vital for the important things in this life, even the basics of being born, metabolizing food, and daily movements. Timing contextualizes all of the temporal adversities in human life, too. But eventually, all temporal afflictions end. God was testing Job’s moral character. We know this now because we have [Job’s] book and know the entire ordeal, including the happy ending. But if God had told Job about the test in advance, including how God was proving that Satan was an impudent liar, it would have ruined the legitimacy of Job’s own trial of faith. What Job learned through his agonizing ordeal was synched to sequenced timing—God’s timing—so that Job’s sufferings ultimately ended and counted for good ... as Paul would later [in Romans 8:28] say, “all things work together for good” (quoting from Johnson, 2016).

The main lesson for Job—which fits the overall context of his book—is that God is providentially caring, all-wise, and all-powerful, so He can and should be trusted with all of Job’s life.

## Exegetical Observations and Lexical Analysis

### Verses 1–4

As before (such as in 38:39, with God’s question about lions), God’s

interrogation (of Job) begins with the interrogatory particle prefix (*ha-*), indicating a question. In these verses Job is asked about gestation and child-bearing, as illustrated in the life cycles of the *ya’elê-sâla’* (KJV: “wild goats of the rock”) and *’ayyâlôth* (KJV: “hinds”). Both of these are wild mammals that illustrate the need for successful reproduction. God’s inquiry begins with the rhetorical question “do you know [*ha-yâda’tâ* – qal perfect 2<sup>nd</sup> person masculine singular of *yâda’*] ...?”—emphasizing God’s perfect and infinite knowledge of creation, in contrast to Job’s imperfect and finite knowledge.

These two animals exhibit the suffering (affliction, pain, discomfort, etc.) of pregnancy and childbirth that leads to a good outcome, eventually. These paired animals, as well as the other wildlife pairs, illustratively fit the overall “Creator-cares-for-His-struggling-creation” theme of Job’s book; this theme is well summarized by 1<sup>st</sup> Peter 4:19.

There are two infinitive constructs in 39:1, the qal *ledeth* (“bring forth,” i.e., to procreatively generate or “beget”/“give birth,” from *yâlad*) and the pôlêl *hólêl* (“do calve,” i.e., to procreatively struggle in pain/discomfort to give birth, from *hûl*, as in Isaiah 26:17 & 54:1). For both of these mammal mothers, the *timing* of their pregnancy and childbirths is providential: God knows “when” [‘ê] the ibexes bring forth, as well as when cervid “hinds” (deer roe) calve. God’s question (in Job 39:1b) implies that Job neither observes nor provides watch-care (qal imperfect form of root verb *šamar* = to watch, keep, safeguard, preserve.) over these critical wildlife events, once again demonstrating Job’s limited knowledge of how God comprehensively cares for the world and its multifarious creatures’ life cycles.

As 39:2 indicates, these birthing events are always observed (and providentially cared for) by God; unlike Job the mortal human, God can and does “number [qal imperfect form of *sâphar*]

the months they fulfill [piel imperfect form of *māla*]” and He knows “the time [‘ēt] when they bring forth [qal infinitive construct form of *yālad*, with 3<sup>rd</sup> person feminine plural suffix].”

These animal childbirth processes involve struggle, as 39:3 indicates: these mammal mothers “bow themselves” [qal imperfect form of *kāra*], to “bring forth” [piel imperfect form of *pālah*] their begotten-ones (i.e., their newborn babies); thus they forcibly “cast out” [piel imperfect form of *šālah*] their sorrows.

Yet this progeny-generating struggle achieves a good outcome: “their young ones” (*benêhem* = “their children”) grow up in the open field (*bar*); they issue forth and don’t return unto their parents. Notice that the last two verbs in Job 39:4, *yaše’û* (they “go forth”) and *šābû* (they “return”) and both qal perfect forms (of *yāša’* and *šûb*, respectively), indicating a description of activity as completed.

Although the multi-generational process continues, with each new generation of ibexes leaving their mothers after weaning, God is emphasizing (to Job) that He completes the child-rearing process so that the filial generation become independent of parental care and does not return to the earlier state of childish dependence. This shows that the Hebrew perfect verb is not identical to an English grammar’s “past” tense, because the completed action (of leaving maternal care for a new life of independence) is chronologically future as to future generations.

The rocky cliff-dwelling *ya’alāh* (introduced in Job 39:1a) is not a domesticated goat (‘ēz). The root verb for this noun is “ascend” (‘*alah*), and that is what these high-elevation quadrupeds are famous for doing. The first-named animal is a type of wild mountain goat, most likely what today is called the Nubian ibex, which is similar to the Alpine ibex, a/k/a Steinbok (Cansdale, 1976). Specifically, zoölogist Cansdale observes: “The incident in I Samuel 24:2 ff. gives useful confirmation by

describing David and his men as being ‘on the rocks of the wild goats.’ This was at En Gedi, the oasis just above the west side of the Dead Sea. The name itself was significant—the Fountain [i.e., freshwater well/spring] of the Kid—and the ibex themselves are still there today, in a Wildlife Sanctuary made specially to protect them among the barren hills where they have always lived. In Job 39:1 the [Nubian] ibex is associated with [i.e., compared to] the hind (deer) in a way suggesting that they belong to the same class [or comparable category] of animals.” (Quoting Cansdale 1976, page 88.)

This rocky cliff-dwelling *ya’alāh*, in singular feminine noun form (*ya’alāh*), also appears in Proverbs 5:19. Furthermore, the masculine plural noun form (*ye’ēlīm*) appears also in 1<sup>st</sup> Samuel 24:2 (1<sup>st</sup> Samuel 24:3 in the Hebrew Bible), associated with rocks, and again in Psalm 104:18, associated with high elevations.

The cervid doe (introduced in 39:1b), i.e., the mother deer (“hind” in KJV, the Hebrew feminine plural is ‘*ayyālōth*), is the second-named baby-bearing (and birthing) mammal. This feminine noun appears elsewhere, such as in Genesis 49:21, 2<sup>nd</sup> Samuel 22:34, Habakkuk 3:19, etc.—with Psalm 29:9 specifically noting that it is the LORD Who shakes loose (i.e., causes calving) the cervid hind’s newborn, at birth, using a wordplay with the same verb [*hûl*] in Psalm 29:8. The male deer (“hart” in KJV) is *ayyāl* in Hebrew (as in Psalm 42:1(2), Isaiah 35:6, etc.

### Verses 5–12

The next wild mammal pair begins with the “wild ass” (*pere’*, also called ‘*ârôr* in 39:5b), followed by the “unicorn” (*re’ēm*), described in Job 39:9–12, which is a wild animal that today is called rhinoceros (Johnson, 2018a). The common theme for this pair is their unharnessed, free-ranging, vigorous independence (linking to the independence allusion in 39:4).

The “wild ass” (Job 39:6), according to zoölogist George Cansdale, is most likely the steppe-dwelling Asian equid variety called the Onager, which is the same untamed “wild ass” mentioned in Jeremiah 2:24, and metaphorically likened to Ishmael’s progeny in the prophecy of Genesis 16:12) (Cansdale, 1976, pages 94–95; see also Job 24:5; Jeremiah 2:24; Psalm 104:11). The wild ass lives apart from mankind (39:7), so a lifetime of domesticated service, such as bearing burdens for a “driver,” or hearing the noises of city activities—is not the lifestyle of the wild ass. Yet mankind is not needed, for the wild ass to survive (and thrive) in the wildernesses or arid deserts and semi-arid steppes (39:8), because the onager ass is providentially equipped to search out needed food (“every green thing” = *kāl-yârôq*) from vegetation growing in “mountains” (*hârīm* = highlands, i.e., mountains or hills). In effect, to the wild ass, “his pasture” (*mirē’ēhû*) is what humans call a wild wasteland. Onagers are resilient, no thanks to humans—again showing God’s providence.

The next animal is what the King James Version calls “unicorn”—which was the usual English word used, during A.D.1611 and for centuries thereafter (Webster, 1828; Johnson, 2018a), to denote a one-horned rhinoceros (today called *Rhinoceros unicornis*). As shown elsewhere, the usages of the Hebrew noun *re’ēm* suggest that this Hebrew noun was not limited to the one-horned rhinoceros, as is shown by Deuteronomy 33:17 (which refers to the *re’ēm* having more than one horn). In fact, one-horned rhinoceroses (Indian and Javan varieties) once ranged in northern India, in Indochina, and in Indonesia; whereas two-horned rhinos (White and Black varieties) once dwelt over most in Africa—including not far from the Nile River (and thus near the Mideast), as well as one variety (Sumatran variety) in Indochina and in Indonesia (Dinerstein, 2003). Since Job lived in “the land of

Uz” (1:1), which (according to Lamentations 4:21) was later associated with the Edomites, the historic ranges of the two-horned rhinoceros was geographically closer to where Job is assumed to have lived, which better matches the *re’ēm* of Deuteronomy 33:17.

Unsurprisingly, humans do not domesticate rhinos; the rhinoceros is neither service-harnessed (for ploughing agricultural fields) nor housed in a cattle-crib, as 39:9–10 indicates. Rhinoceros might is unquestioned, but that power will not be useful to human farmers (39:11). God uses rhetorical questions to guide Job’s thinking, with interrogative particles (*ha-*) prefixed to the “unicorn” questions in Verses 9, 10, 11, and 12.

Job himself was a master of agriculture, owning oxen and asses (as noted in Job 1:3), so God mentions grain crops being planted (39:10–11) and harvested (39:12)—and God then notes that the rhino is no help to crop-growing farmers who need beasts of burden like mules or oxen.

### Verses 13–25

The next pair of animals are described (in 39:13–25) with some vocabulary that has puzzled (and often confused) many translators, to say the least. Identifying the second animal (of the pair) is easy: the horse (*sūs*), which is the only animal in this series that is bridled for mankind’s service. It is the first-named creature of the pair, the birds called *renânîm* (plural noun, based upon the root verb *rânan* = “to call/sing/shout/scream/cry loudly”), and its described traits, that baffle many exegetes. As shown below, the most likely identification of this wild flightless bird is the ostrich (or perhaps an ostrich “cousin,” such as now-extinct ratites like the moa or elephant bird). Of course, much of what is noted here would be applicable to ratites in general, such as the Casowary of Australia (Smith, 2015, pages 17–21).

The common theme in 39:13–25 is the fearless (even reckless) disposition of both the powerful ostrich and powerful war-horse. Job is experiencing what seems like an out-of-control world, so he can relate to what looks like crazy recklessness (e.g., 39:15–16 & 39:20–22) and crazy commotion (39:18 & 39:20–25) that attends the fast-lane lifestyles of ostrich and war-horse.

The ostrich wing (*kenaph-renânîm* in 39:13) is not designed for flying.

Notice that (in Job 39:13) “wing” is in singular feminine construct, “ostriches” is in plural masculine absolute; since the wings are symmetrical, the God-designed anatomy and utility of one wing applies to both wings.

However, that does not mean those wings (like the wings of other ratite birds) are useless, because flapping wings are useful to the ostrich: they are used for courtship displays, they conserve body heat (including coverage of upper leg skin) during cold nights, and they can radiate excess body heat during hot days. Moreover, the ostrich uses his or her wings like an aerodynamic “rudder,” for quick change-of-direction steering while running at high speeds. These unusual wings—and the ostrich’s unusual speed—are traits that God emphasizes to Job, as God explains how He balances creaturely limitations with providential traits, so that the overall outcome is a success story (Cansdale, 1976, pages 190–193; see also Johnson, 2017).

The ostrich is relatively careless about parenting, exposing ground-laid eggs (Cansdale, 1976, page 191) to injury (Job 39:14–15), yet the resilient toughness and speed of the ostrich compensates, as a counter-balancing advantage that suits this fearless bird for its rough habitats (39:16–18). Ostrich ranges were previously larger, including southwest Asia, in Israel and the Arab regions, and in Africa (Cansdale, 1976, page 191). The ostrich is the largest bird alive nowadays, so it is not surprising that it is a confident, noisy bird—ac-

cordingly, the ostrich has virtually no predators for it to be habitually fearful of. As a noisy bird—its Hebrew name is related to the verb that is often translated “sing” (*rânan*), usually in contexts of rejoicing (e.g., Psalms 51:14 & 81:1; Isaiah 35:6 & 65:14; Jeremiah 31:7; etc.). In fact, there may be a wordplay linking the joyful singing connotation (of the ostrich’s Hebrew name) with the action verb in Job 39:13, ‘âlas—the action of rejoicing (i.e., the verb “rejoice” in Job 20:18).

The feminine singular noun “wing” (*kenaph*, as construct form in 39:13) somehow matches three other feminine singular words in that same sentence: ‘*ebrâh* (“wing”/“pinion” = power, i.e., powering the wings for flight), *ḥasîdâh* (“faithful” or “stork”), and *nōṣâh* (plumage/feather). The connotation of *kenaph* is the wing’s action of overspreading, collecting, and fencing in the air, for airlift (see Daniel 9:27; see also the equivalent Aramaic verb *kenaph* in Daniel 3:2–3 & 3:27). Further complicating the sentence, the pivotal conjunction ‘*im* (immediately preceding ‘*ebrâh* in 39:13) serves as an interrogative or hypothetical particle, often implying a contrast or negative (see Jeremiah 33:25–26). How does that conjunction (‘*im*) connect the feminine singular noun “wing” (*kenaph*, as a construct form in 39:13) with the three subsequent feminine singular nouns (and/or adjectives, i.e., ‘*ebrâh* (“wing”/power, as in Psalm 55:6(7), Isaiah 40:31, Ezekiel 17:3), *ḥasîdâh* (“faithful”/“stork,” as in Jeremiah 8:7), and *nōṣâh* (plumage/feather, as in Ezekiel 17:3 & 17:7)?

Although many translate *ḥasîdâh* (in 39:13) as a feminine **adjective** (meaning “loving-kind” or “faithful”), it could be the same-spelled feminine **noun**, meaning “stork.” Israel’s white stork (*ḥasîdâh*) is famous for its dependability, faithfully returning from its migration—as such a role-model of faithfulness that the prophet Jeremiah, in Jeremiah 8:7, contrasted the stork’s faithful return to the failure

of God's covenant people (i.e., Israel) to "return" to Him (Johnson, 2008).

Also, the wings of the stork are notable for their size and airlift (see Zechariah 5:9), greatly contrasting with flightless ostrich wings.

Another puzzle piece is the Hebrew etymology of *nōṣāh*—is that derived from the verb *nāṣāh*, meaning "to fly over"/"oversee" (as in ), or from the same-spelled *nāṣāh*, meaning "to struggle"/"to overcome"/"to overpower"/"to contend," etc., as in Exodus 2:13 & 21:22; Leviticus 24:10; 2<sup>nd</sup> Samuel 14:6; Jeremiah 4:7; Isaiah 37:26; Numbers 26:9, etc.).

Maybe the pivotal conjunction *'im* introduces a contrast, i.e., that the flightless wings of the ostrich are designed in contrast to the flight-powering wings of the stork? Perhaps this sentence may be more literally translated: "[The] wing of ostriches is joy-waved, but [is it] wing-power [of] stork and/or plumage?" If so, the rhetorical question necessarily implies that the ostrich has wings that are unlike those of the stork, because God's purpose for the ostrich's **terrestrial** (running) mobility is very different from God's purpose for the stork's **airborne** (flying) mobility.

Like the boisterous ostrich, the horse (*sūs*)—especially the horse trained for warfare—is powerful, fearless, and thrive amidst commotion (39:19–25). When the surrounding circumstances are in danger and tumult (as was then the case, with Job's personal life, during Job's dialogue with God), both the ostrich and the war-horse, in effect, laugh with confidence (39:18 & 39:25). In particular, God informs Job (in 39:19–25, especially in 39:20) that the war-horse is not intimidated by humans like Job, so the horse will not jump skittishly before him, like a grasshopper might. Some translate *'arbeh* (in 39:20) as "locust" but locusts are actually a condition-adapted form of grasshopper, so the Hebrew noun *'arbeh* properly applies to both of

what we call "grasshopper" and "locust" (Johnson, 2020).

### Verses 26–30

Before God speaks to Job about the monstrous creatures of wet habitats—Behemoth (in chapter 40) and Leviathan (in chapter 41)—God refers to one more pair of land-based creatures, both of them raptor birds, the "hawk" (*nēṣ*) and the "eagle" (*nāṣer*, which some would apply to certain vultures, but those "vultures" are misnamed and should be labeled "eagles"), in 39:26–30.

These predatory birds are large-bodied, and thus heavy, so launching from the earth, into the skies, requires efficiently overcoming gravity. Yet it is God Who has solved (in advance) the gravity problem, just as God solves all of the important problems in life (including Job's problems).

Some who read Job 39:26—which alludes to a hawk stretching out its wings "toward the south"—assume that hawk migration is the question's topic (Cansdale, 1976, page 147).

But the poetic parallelism-based context suggests otherwise, because the hawk's aerial behavior is compared to eagle flight. Both raptor birds require special aerodynamics to lift their heavy bodies up into the air successfully. In fact, God has designed such raptors to utilize weather-powered "elevators" for ascending upward into air currents (see Isaiah 40:31; Obadiah 1:4; Proverbs 30:19; see also Harrison & Loxton, 1993, page 49).

As Luke 12:55 indicates, hot air currents routinely come from south of Israel, so hawks can "catch a [thermal] ride" simply by stretching out their wings southward, catching the powerful air current, just as a boat's sail catches wind-power to blow the boat across a sea. This harnessing of wind-power matches the Hebrew vocabulary used (in Job 39:26), as is shown by the same Hebrew verb [*pâraś*] used to describe hawk wing-

spread (in 39:26) being used in Isaiah 33:23, to refer to boat-sails being spread out, to catch the wind's power (Alerstan 1993, pages 252–253; Stokes & Stokes 1989, pages 98, 110, 139, & 156.).

Likewise (in 39:27), the "eagle" (*nāṣer*) "mounts up" (a hiphil imperfect form of *gābah*) upon God's command, and is thus enabled to frequent high places (as Obadiah 1:14 indicates) where it "makes high its nest" (*yârîm qinnô*).

Thus, the continuing focus of this series of "creature feature" pair questions is emphasized in 39:26, when God's question confronts Job:

**"Is it from your wisdom ... [that these animals can do what they do, successfully] ...?"**

All these animals are able to survive—and even thrive—amidst the rough-and-tough vicissitudes of life on a fallen planet, because God providentially applies His infinite wisdom (*bînâh*) to the multifarious life challenges facing all these wild creatures—including their need for food (38:39–41), their need for successful reproduction (39:1–4), their need for a home range (39:5–12), their need for mobility on land (39:25) or mobility in the skies (39:26–30).

The necessarily implied lesson for Job (and for us, today), while suffering continues, is that Job (and we, today) can trust God to do the same—and more (1<sup>st</sup> Peter 4:19; Ephesians 3:20).

### Bibliography

- Alerstan, Thomas. 1993. *Bird Migration*. New York, NY: Cambridge University Press.
- Baughman, Ray E. 1965. *Seeking Bible Treasures*. Oak Park, IL: Emmaus Bible School.
- Cansdale, George S. 1976. *All the Animals of the Bible Lands*. Grand Rapids, MI: Zondervan.
- Dinerstein, Eric. 2003. *The Return of the Unicorns: The Natural History and Conservation of the Greater One-Horned*

- Rhinoceros*. New York: Columbia University Press, 2003.
- Eggleton, Michael. 2016. On eagle's wings: The American Bald Eagle. *Creation*, 38(2):34–37.
- Harrison, Colin, & Howard Loxton. *The Bird: Master of Flight* (Hauppauge, NY: Barron's, 1993).
- Johnson, James J. S. 2008. A lesson from the Stork. *Days of Praise* (August 22, 2008), posted at <https://www.icr.org/article/lesson-from-stork>.
- Johnson, James J. S. 2011. Genesis is history, not poetry: Exposing hidden assumptions about what Hebrew poetry is and is not. *Acts & Facts*, 40(6):8–9, posted at <https://www.icr.org/article/genesis-history-poetry-exposing-hidde>.
- Johnson, James J. S. 2013. God fitted habitats for biodiversity. *Acts & Facts*, 42(3):10–12, posted at <https://www.icr.org/article/god-fitted-habitats-for-biodiversity/>.
- Johnson, James J. S. 2014. Job's icy vocabulary. *Acts & Facts*, 43(12):19, posted at <https://www.icr.org/article/jobs-icy-vocabulary>.
- Johnson, James J. S. 2016. God's timing makes sense of adversity. *Acts & Facts*, 45(2):21, posted at <https://www.icr.org/article/gods-timing-makes-sense-adversity>.
- Johnson, James J. S. 2017. Mechanical multi-tasking on the Mayflower. *Acts & Facts*, 46(11):21, posted at <https://www.icr.org/article/mechanical-multitasking-mayflower/>.
- Johnson, James J. S. 2018a. Skeptics' pointless ridicule of the Bible's 'unicorns.' *Acts & Facts*, 47(2):21, posted at <https://www.icr.org/article/skeptics-pointless-ridicule-bibles>.
- Johnson, James J. S. 2018b. Hawks and Eagles Launching Skyward. *Acts & Facts*, 47(4):21, posted at <https://www.icr.org/article/hawks-eagles-launching-skyward>.
- Johnson, James J. S. 2020. Locust plague now 20 times worse. *Creation Science Update*, posted at <https://www.icr.org/article/locust-plague-now-20-times-worse>.
- Johnson, James J. S. 2021. Grasshopper apologetics: No need to get jumpy. *Acts & Fact.*, 50(7):20.
- Moore, Peter D., editor. 1987. *The Encyclopedia of Animal Ecology*. New York, NY: Equinox Books/Facts on File Publications.
- Morris, Henry M. 2000. *The Remarkable Record of Job: The Ancient Wisdom, Scientific Accuracy, and Life-Changing Message of an Amazing Book*. Green Forest, AR: Master Books.
- Pratico, Gary D., & Miles V. Van Pelt. 2001. *Basics of Biblical Hebrew Grammar*. Grand Rapids, MI: Zondervan.
- Smith, Fiona. 2015. *Evidence for Creation: A Tour through Some East-Australian Zoos*. Fremantle, Western Australia: Vivid Publishing.
- Stokes, Donald, & Lillian Stokes. 1989. *A Guide to Bird Behavior, volume III*. Boston, MA: Little, Brown & Company.
- Webster, Noah. 1828. *American Dictionary of the English Language*. San Francisco, CA: Foundation for American Christian Education (1995 facsimile edition of Noah Webster's 1828 first edition).
- Zuck, Roy B. 1978. *Job, Everyman's Bible Commentary*. Chicago, IL: Moody Press.